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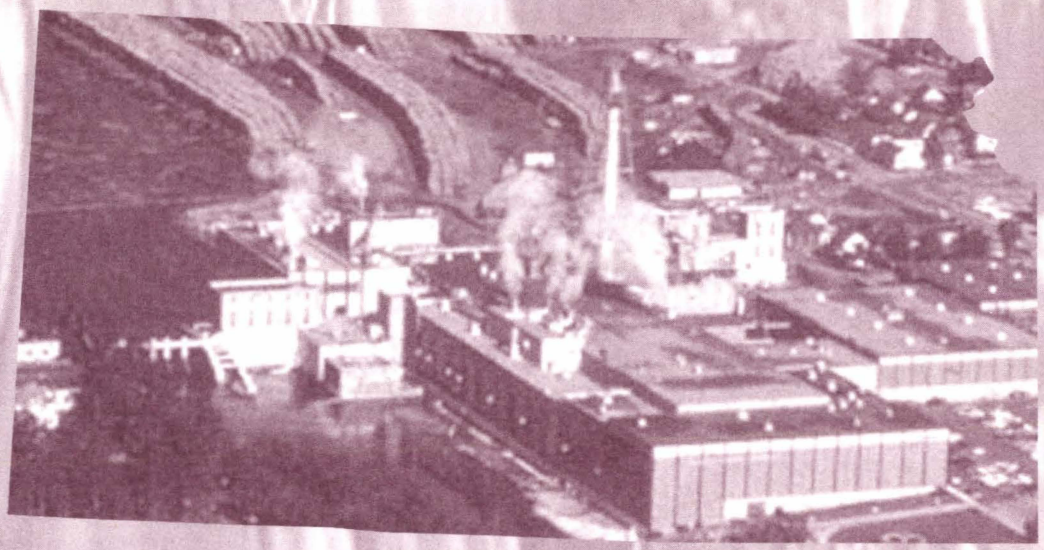
Kansas Timber Industry—An Assessment of Timber Product and Use, 2003

William H. Reading, IV and David L. Bruton



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FOREWORD

This bulletin reports the findings of a survey of all primary wood-using mills in Kansas in 2003 and details the industry's size and composition, its use of roundwood, and its generation and disposition of wood residues. Such detailed information is necessary for intelligent planning and decisionmaking in wood procurement, forest resource management, forest industry development, and forest research.

Special thanks are given to primary wood-using firms that responded to the survey and to the Kansas Forest Service, Kansas State University, for canvassing the respondents. Their cooperation is greatly appreciated.

All volumes are reported in product-specific standard units and/or cubic feet. Volumes reported by mills in nonstandard units were converted to standard units using regional conversion factors. Reported trends and changes in the primary wood-using industry in Kansas are based on comparisons with previous surveys of the State's primary wood-using industry conducted in 1980, 1993, and 1998. Row and column data of tables may not sum due to rounding, but data in each table cell are accurately displayed.

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Kansas Timber Industry—An Assessment of Timber Product Output and Use, 2003

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HIGHLIGHTS

Primary Wood-Using Industry

- The number of mills processing more than 1 million board feet per year decreased from five in 1998 to three in 2003 (table 1).
- The volume of industrial roundwood received by mills in Kansas in 2003 was 2,594 thousand cubic feet—a 16-percent reduction from 1998 (table 2).
- While overall roundwood receipts fell from 1998 levels, receipts by mills classified as small (less than 100 thousand board feet (MBF)/year) increased from 1998 levels (fig. 1).
- Kansas forest lands provided 97 percent of the roundwood received by the State's mills in 2003, up from 86 percent in 1998. This increase is mainly due to a drop in roundwood imported from Missouri.
- Most saw logs used by Kansas mills were grown in Kansas. The remaining saw logs were from Missouri and Oklahoma (fig. 2).

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David L. Bruton, Utilization and Marketing Forester, Kansas Forest Service, received a B.S. in forest management from the University of Missouri-Columbia in 1988. He joined the Kansas Forest Service in 1992.

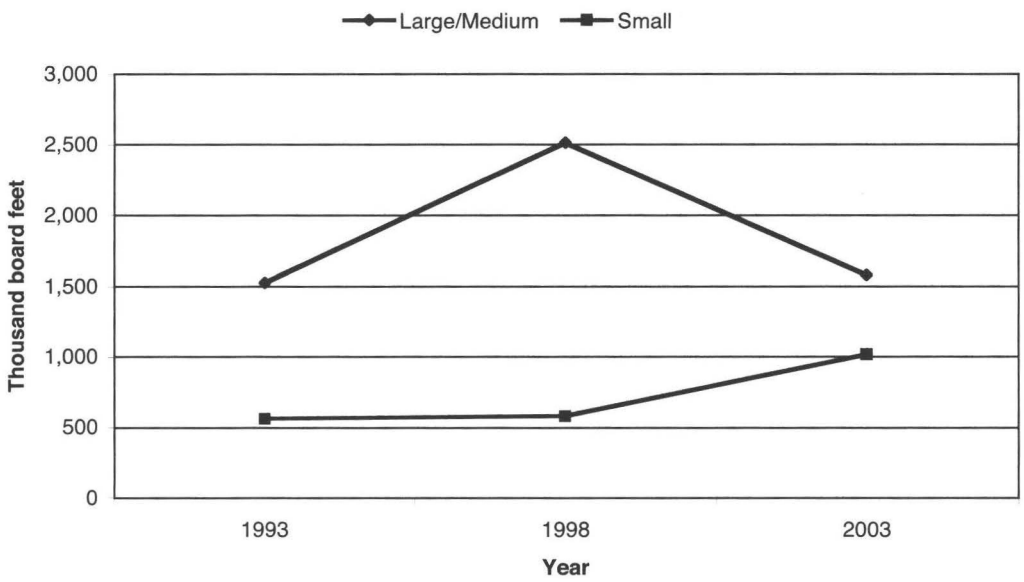


Figure 1.—*Saw log receipts by mill size class and survey year, Kansas, 1993, 1998, 2003.*

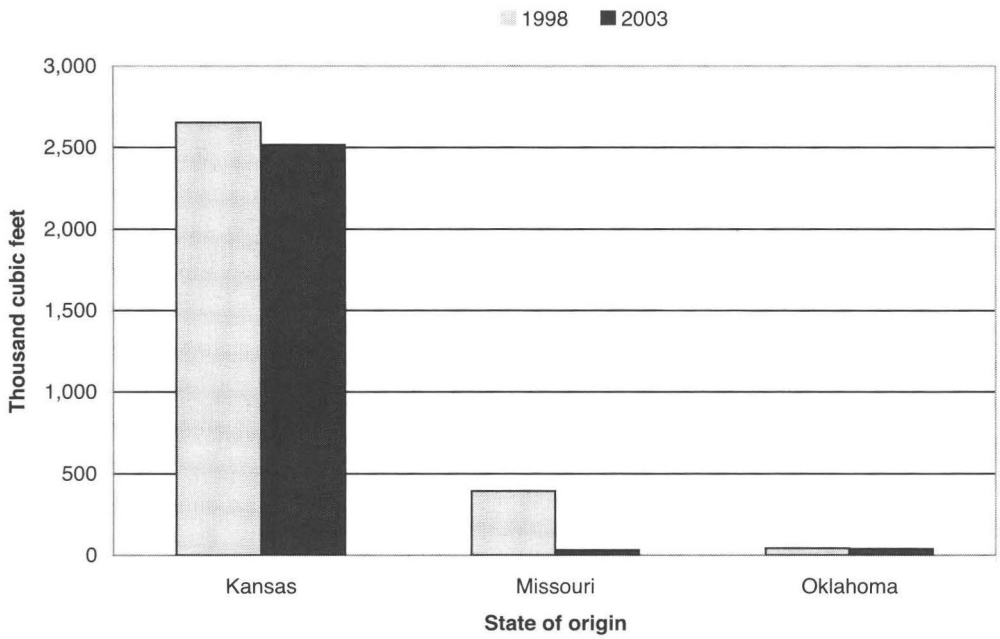


Figure 2.—*Saw log receipts by State of origin and by survey year, Kansas, 1998 and 2003.*

- The Northeastern and Southeastern Forest Survey Units contain most of the primary mills in the State (fig. 3).

- The proportion of roundwood going to mills in the three Forest Survey Units changed significantly between the 1998 and 2003 surveys (fig. 4). Receipts by mills in the Northeastern Unit fell by 45 percent, Southeastern Unit receipts fell by 12 percent, and Western Unit receipts increased by 169 percent. During the same period, the net loss of one large and one medium mill occurred.

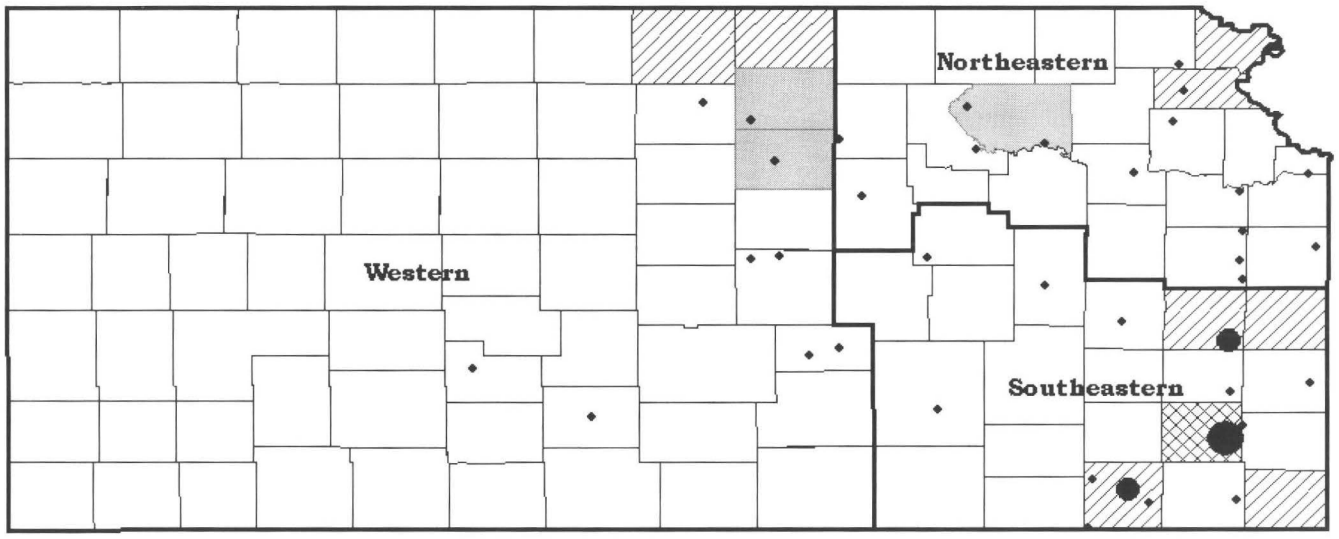
Industrial Roundwood Production

- In 2003, industrial roundwood production was 3,287 thousand cubic feet—an increase of 1 percent over 1998 (table 3).

- Saw log production, by far the largest component of production, increased by 2 percent between 1998 and 2003—from 19,819 MBF to 20,186 MBF (table 5). With the net volume of sawtimber on Kansas timberland currently estimated to be 5,287,676 MBF (Moser *et al.* 2006), this equates to an annual removal of just 0.38 percent.

- Most of the roundwood production from Kansas forests was used by Kansas mills (77 percent) with the remainder going to Missouri (12 percent), Nebraska (10 percent), and other mills outside of the Northern Region of the Forest Service (2 percent) (fig. 5). Exports of saw logs to other States increased by 31 percent from 1998 to 2003.

- The Southeastern Forest Survey Unit continues to produce the majority of the saw logs harvested in Kansas. The Southeastern Unit produced 58 percent of production followed by the Northeastern Unit (24 percent) and the Western Unit (18 percent) (fig. 6). Based on current forest inventory data, the current sawtimber production levels are not well correlated with sawtimber inventory figures at the Survey Unit level. The Northeastern Unit contains 44 percent of the standing sawtimber, the Southeastern Unit contains 37 percent, and the Western Unit contains 19 percent (fig. 7).



Legend

Primary Mill Locations

Annual Mill Receipts

- Less than 100 MBF/year
- 100 - 1,000 MBF/year
- More than 1,000 MBF/year

County Roundwood Production

Production Volume

- Less than 500 MBF/year
- 500 - 1,000 MBF/year
- 1,001 - 5,000 MBF/year
- More than 5,000 MBF/year

N
W E
S

Annual mill receipts is volume of roundwood received by mill, in MBF (thousand board feet) 1/4-inch International scale, for year 2003. Source of roundwood can be both in-state and out-of-state.

Production volume is volume of roundwood harvested, in MBF 1/4-inch International scale, from individual county for year 2003. Destination of roundwood can be both in-state and out-of-state.

Figure 3.—*Active sawmill location, receipts, and county production volumes, Kansas, 2003.*

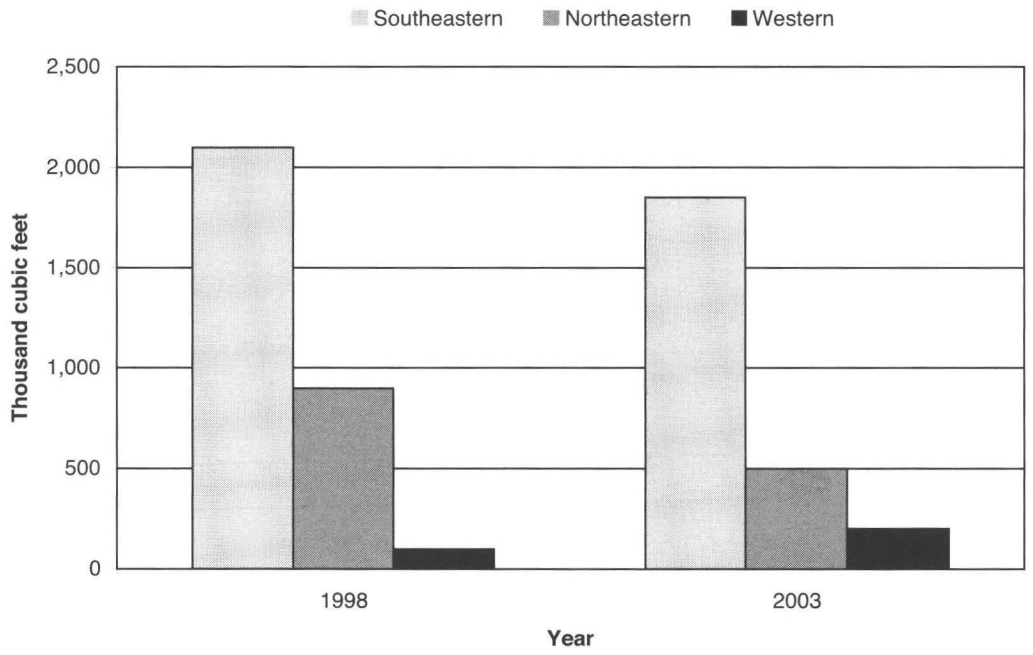


Figure 4.—*Mill receipts by Forest Survey Unit and year, Kansas, 1998 and 2003.*

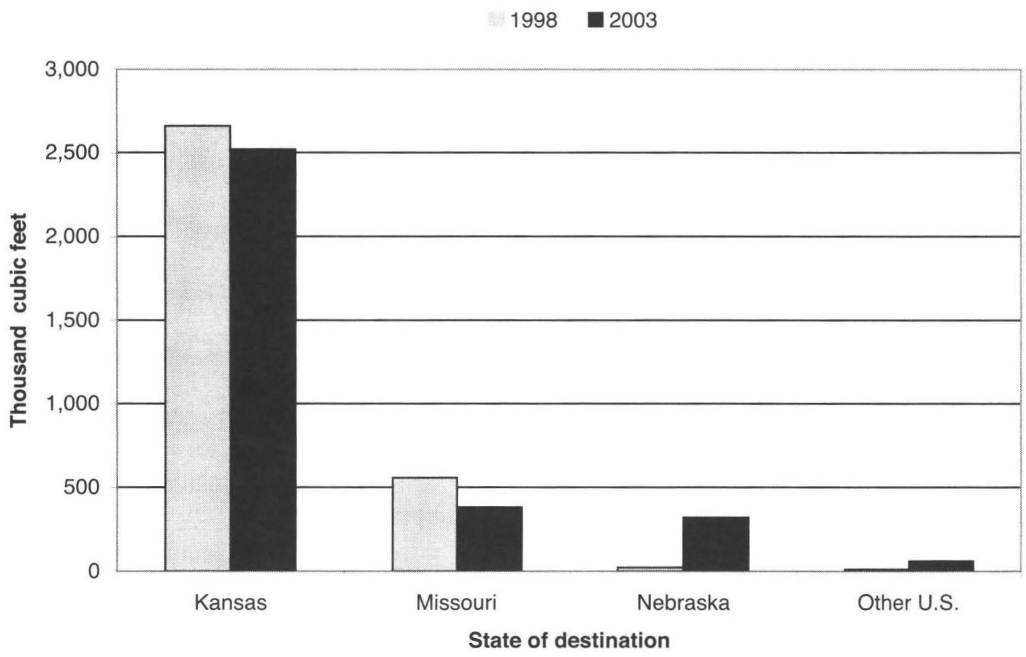


Figure 5.— *Kansas saw log production by State of destination and year, Kansas, 1998 and 2003.*

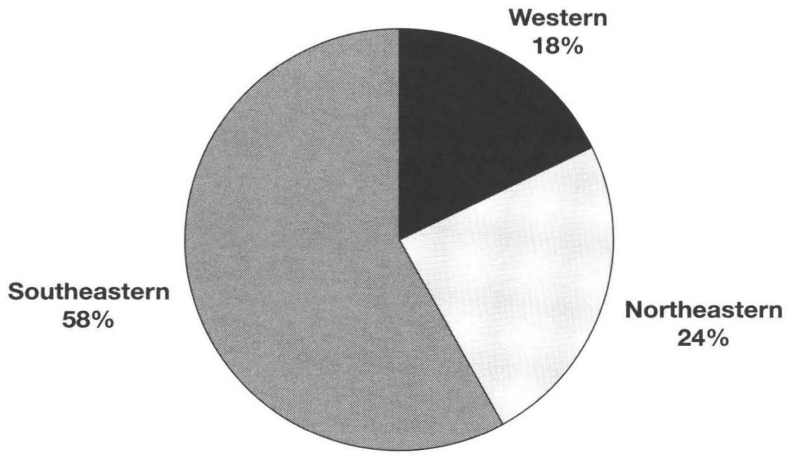


Figure 6.—*Saw log production by Forest Survey Unit, Kansas, 2003.*

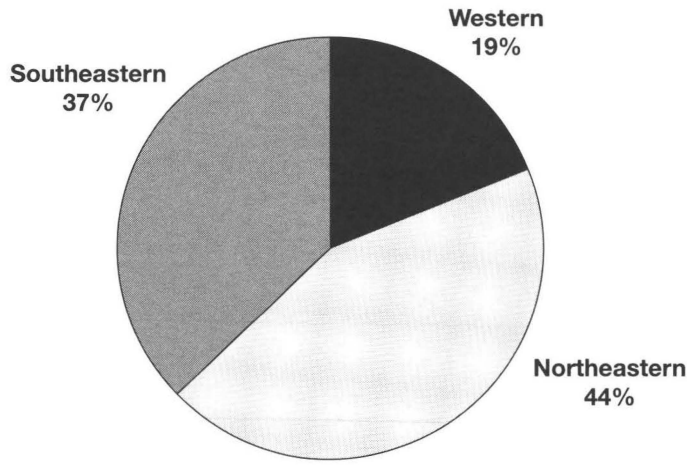


Figure 7.—*Percent of State sawtimber inventory volume by Forest Survey Unit, Kansas, 2004.*

- In 2003, 0.21 percent of the standing sawtimber was harvested in the Northeastern Unit, 0.60 percent was harvested in the Southeastern Unit, and 0.35 percent was harvested in the Western Unit.

- The distribution of saw log production by species/species group changed from 1998 to 2003 (fig. 8). Notably, ash increased from 4 percent to 9 percent, black walnut increased from 7 percent to 14 percent, hackberry decreased from 9 percent to 4 percent, and white oak decreased from 23 percent to 18 percent.

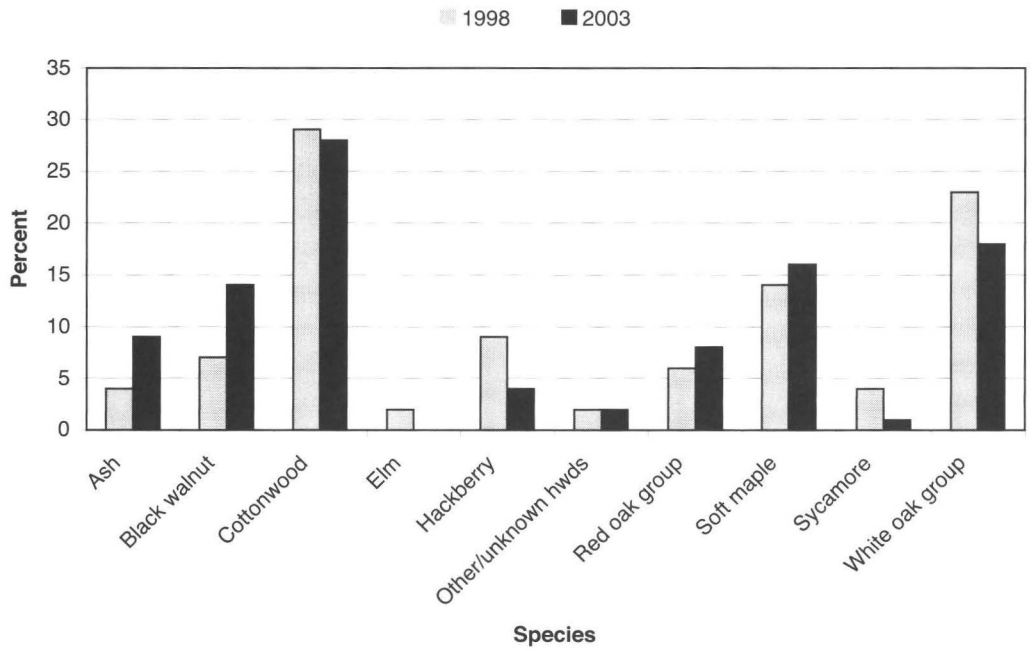


Figure 8.—*Percent of saw log production by species/species group, Kansas, 1998 and 2003.*

Primary Mill Residues

- The percentage of mill residues that were not used increased from 18 percent in 1998 to 29 percent in 2003 (fig. 9). Residues classified as being used for miscellaneous uses dropped from 56 percent in 1998 to 37 percent in 2003. The portion of mill residues used for fiber products rose from 16 percent in 1998 to 24 percent in 2003. The portion of mill residues used for other purposes was relatively unchanged between 1998 and 2003.

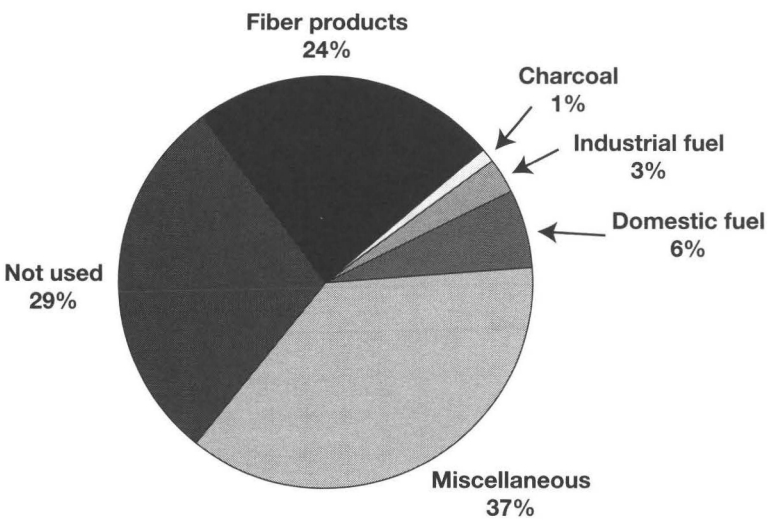


Figure 9.— *Percent distribution of mill residue end use, Kansas, 2003.*

- Residue disposition is far from homogeneous across the three Forest Survey Units (fig. 10). The differences probably reflect regional markets for residues as well as the size distribution of mills across Kansas.

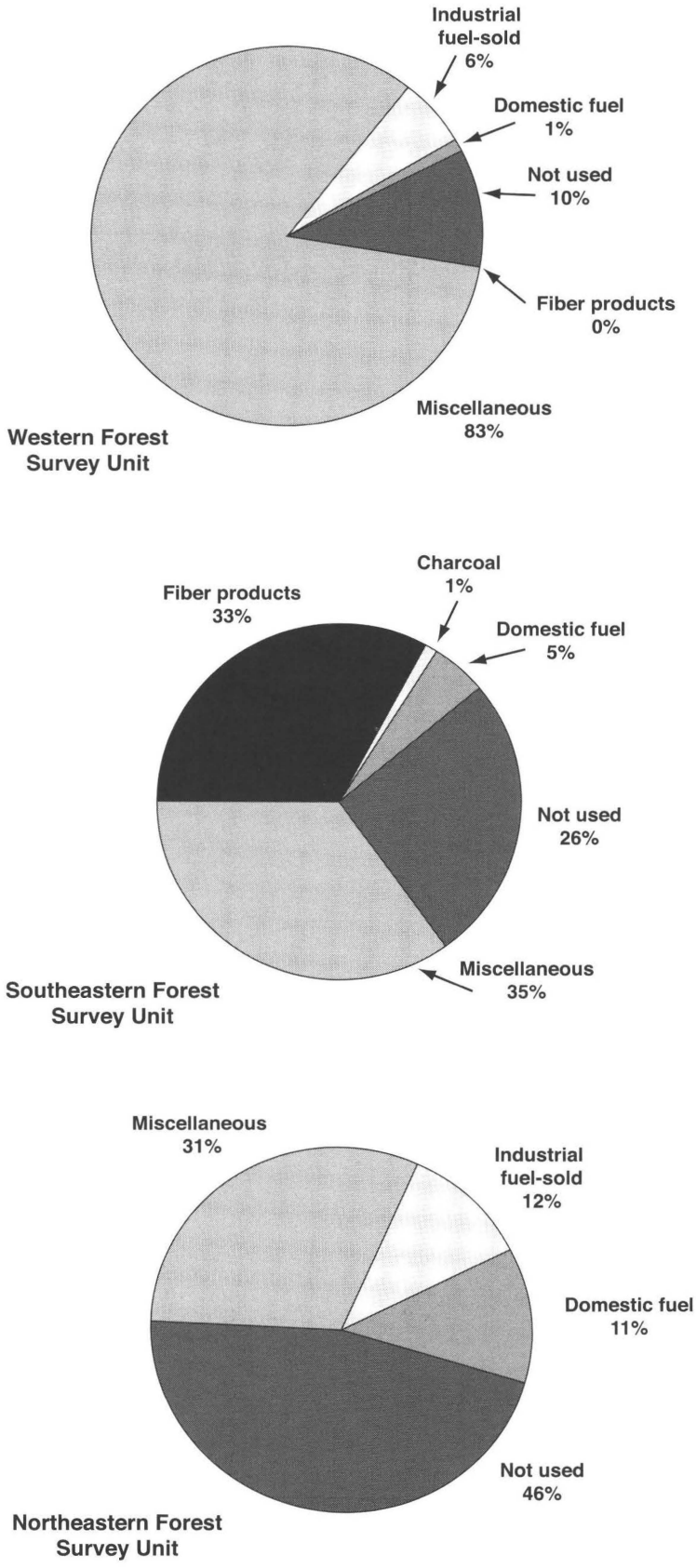


Figure 10.—*Percent distribution of mill residue end use by Forest Survey Unit, Kansas, 2003.*

APPENDIX

STUDY METHODS

This study was a cooperative effort of the Kansas Forest Service (KFS) and the North Central Research Station (NCRS) of the USDA Forest Service. KFS used mail questionnaires supplied by NCRS that were designed to determine the size and composition of the State's primary wood-using mills, and followed up with additional mailings, telephone, and personal contacts until a 100-percent response was achieved. Completed questionnaires were sent to NCRS for editing and processing.

As part of data editing and processing, all industrial roundwood volumes reported on the questionnaires were converted to standard units of measure using regional conversion factors. Timber removals by source of material and harvest residues generated during logging were estimated from standard product volumes using factors developed from logging utilization studies previously conducted by NCRS. Finalized data on the State's industrial roundwood receipts were loaded into a regional timber removals database where they were supplemented with data on out-of-State uses of Kansas roundwood to provide a complete assessment of the State's timber product output.

DEFINITION OF TERMS

Board foot—Unit of measure applied to roundwood. It relates to lumber that is 1 foot long, 1 foot wide, and 1 inch thick (or its volume equivalent).

Central stem—The portion of a tree between a 1-foot stump and the minimum 4.0-inch top diameter outside bark or the point where the central stem breaks into limbs, all of which are less than 4.0 inches diameter outside bark.

Coarse mill residue—Wood residue suitable for chipping such as slabs, edgings, and veneer cores.

Commercial species—Tree species presently or prospectively suitable for industrial wood products. (Note: Excludes species of typically small size, poor form, or inferior quality such as hophornbeam, Osage-orange, and redbud.)

Cull removals—Net volume of rough and rotten trees, plus the net volume in sections of the central stem of growing-stock trees that do not meet regional merchantability standards, harvested for industrial roundwood products.

Dead removals—Net volume of dead trees harvested for industrial roundwood products.

Diameter at breast height (d.b.h.)—The diameter outside bark at 4.5 feet above the forest floor on the uphill side of the tree. For determining breast height, the forest floor includes the duff layer that may be present, but does not include unincorporated woody debris that may rise above the ground line.

Doyle scale—Log rule based on a mathematical formula of log diameter and length. Doyle scale tends to underscale small diameter logs and overscale large diameter logs.

Fine mill residue—Wood residue not suitable for chipping such as sawdust and veneer clippings.

Forest land—Land at least 10 percent stocked by forest trees of any size, or formerly having had such tree cover, and not currently developed for nonforest use. (Note: Stocking is measured by comparing specified standards with basal area and/or number of trees, age or size, and spacing.) The minimum area for classification of forest land is 1 acre. Roadside, streamside, and shelterbelt strips of timber must have a crown width of at least 120 feet to qualify as forest land. Unimproved roads and trails or clearings in forest areas shall be classed as forest if less than 120 feet wide. Streams and other bodies of water shall be classed as forest if less than 30 feet wide.

Growing-stock removals—The volume of growing stock removed from the timberland inventory by harvesting industrial roundwood products. (Note: Includes sawtimber removals, poletimber removals, and logging residues.)

Growing-stock tree—A live timberland tree of commercial species that contains at least one 12-foot saw log or two saw logs 8 feet or longer meeting minimum log/tree grade requirements, now or prospectively, and meeting specified standards of size, quality, and merchantability. At least one-third of the gross board-foot volume must be merchantable material and at least 50 percent sound at any point. (Note: Excludes rough, rotten, and dead trees.)

Growing-stock volume—Net volume of growing-stock trees 5.0 inches d.b.h. and over, from 1 foot above the ground to a minimum 4.0-inch top diameter outside bark of the central stem or to the point where the central stem breaks into limbs.

Hardwoods—Dicotyledonous trees, usually broad-leaved and deciduous.

Harvest residues—The total net volume of unused portions of trees cut or killed by logging. (Note: Includes both logging residues and logging slash.)

Industrial roundwood production—The quantity of industrial roundwood harvested in a geographic area.

Industrial roundwood products—Saw logs, pulpwood, veneer logs, poles, commercial posts, piling, cooperage logs, particleboard bolts, shaving bolts, lath bolts, charcoal bolts, and chips from roundwood used for fuel, pulp, or board products.

Industrial roundwood receipts—The quantity of industrial roundwood received by commercial mills in a geographic area.

International 1/4-inch scale—A log rule or formula for estimating the board-foot volume of logs, allowing one-half inch of taper for each 4-foot length. The rule appears in a number of forms that allow for kerf. In this form, one-fourth inch of kerf is assumed. This rule is used as the USDA Forest Service standard log rule in the Eastern United States.

Limbwood removals—Net volume of all portions of a tree other than the central stem (including forks, large limbs, tops, and stumps) harvested for industrial roundwood products.

Logging residue—Net volume of unused portions of the merchantable central stem of growing-stock trees cut or killed by logging.

Logging slash—Net volume of unused portions of the unmerchantable (non-growing-stock) sections of trees cut or killed by logging.

Merchantable sections—Sections of the central stem of growing-stock trees that meet either pulpwood or saw log specifications.

Net volume—Gross volume less deductions for rot, sweep, or other defects affecting use for roundwood products.

Noncommercial species—Tree species of typically small size, poor form, or inferior quality that normally do not develop into trees suitable for industrial roundwood products.

Nonforest land—Land that has never supported forests, and land formerly forested where use for timber management is precluded by development for other uses. (Note: Includes areas used for crops, improved pasture, residential areas, city parks, improved roads of any width and adjoining clearings, powerline clearings of any width, and 1- to 39.9-acre areas of water classified by the Bureau of the Census as land. If intermingled in forest areas, improved roads and nonforest strips must be more than 120 feet wide and more than 1 acre to qualify as non-forest land.)

Nonforest land removals—Net volume of trees on nonforest lands harvested for industrial roundwood products.

Poletimber—A growing-stock tree at least 5.0 inches d.b.h. but smaller than sawtimber size (9.0 inches d.b.h. for softwoods, 11.0 inches d.b.h. for hardwoods).

Poletimber removals—Net volume in the merchantable central stem of poletimber trees harvested for industrial roundwood products.

Primary wood-using mills—Mills receiving roundwood or chips from roundwood for processing into products.

Primary wood-using mill residue—Wood materials (coarse and fine) and bark generated at manufacturing plants from roundwood processed into principal products. These residues include wood products (byproducts) obtained incidental to production of principal products and wood materials not utilized for some byproduct.

Rotten tree—A tree that does not meet regional merchantability standards because of excessive unsound cull.

Rough tree—A tree that does not meet regional merchantability standards because of excessive sound cull. Includes noncommercial tree species.

Roundwood—Logs, bolts, or other round sections cut from trees (including chips from roundwood).

Sapling—A live tree between 1.0 and 5.0 inches d.b.h.

Sapling removals—Net volume in saplings harvested for industrial roundwood products.

Saw log—A log meeting minimum standards of diameter, length, and defect, sound and straight, and with a minimum diameter outside bark of 7.0 inches for softwoods and 9.0 inches for hardwoods, or other combinations of size and defect specified by regional standards.

Saw log portion—That portion of the central stem of sawtimber trees between the stump and the saw log top.

Saw log top—The point on the central stem of sawtimber trees above which a saw log cannot be produced. The minimum saw log top is 7.0 inches d.o.b. for softwoods and 9.0 inches d.o.b. for hardwoods.

Sawtimber tree—A growing-stock tree containing at least a 12-foot saw log or two noncontiguous saw logs 8 feet or longer, and meeting regional specifications for freedom from defect. Softwoods must be at least 9.0 inches d.b.h. and hardwoods must be at least 11.0 inches d.b.h.

Softwoods—Coniferous trees, usually evergreen, having needles or scale-like leaves.

Timberland—Forest land that is producing, or is capable of producing, in excess of 20 cubic feet per acre per year of industrial roundwood products under natural conditions, is not withdrawn from timber utilization by statute or administrative regulation, and is not associated with urban or rural development.

Timber product output—The volume of roundwood products produced from an area's forests.

Timber removals—The total net volume of trees removed for industrial roundwood products or left on the ground as harvest residues.

Tree—A woody plant usually having one or more perennial stems, a more or less definitely formed crown of foliage, and a height of at least 12 feet at maturity.

Upper stem portion—That portion of the central stem of sawtimber trees between the saw log top and the minimum top diameter of 4.0 inches outside bark or to the point where the central stem breaks into limbs.

Veneer log—Logs to be used in the production of plywood, finished panels, or veneer sheets, both rotary cut and sliced.

TREE SPECIES GROUPS IN KANSAS

(Moser, 2006)

Note: Many additional tree species have been planted around homes, farm buildings, and in towns and cities. However, only those species encountered during the 2004 inventory of the forest resources of Kansas are listed here.

Softwoods	
Pines	
Eastern white pine	*Pinus strobus*
Ponderosa pine	*Pinus ponderosa*
Red pine	*Pinus resinosa*
Shortleaf pine	*Pinus echinata*
Eastern redcedar	*Juniperus virginiana*
Hardwoods	
Ashes	
White ash	*Fraxinus americana*
Green ash	*Fraxinus pennsylvanica*
Blue ash	*Fraxinus quadrangulata*
Elm	
American elm	*Ulmus americana*
Siberian elm	*Ulmus pumila*
Slippery elm	*Ulmus rubra*
Rock elm	*Ulmus thomasii*
Hickories	
Pecan	*Carya illinoensis*
Shellbark hickory	*Carya laciniosa*
Shagbark hickory	*Carya ovata*
Mockernut hickory	*Carya tomentosa*
Bitternut hickory	*Carya cordiformis*
Black hickory	*Carya texana*

Maple	
Silver maple	*Acer saccharinum*
Sugar maple	*Acer saccharum*
Red maple	*Acer rubrum*
Oaks, red	
Northern red oak	*Quercus rubra*
Shumard oak	*Quercus shumardii*
Blackjack oak	*Quercus marilandica*
Shingle oak	*Quercus imbricaria*
Black oak	*Quercua velutina*
Pin oak	*Quercus palustris*
Oaks, white	
White oak	*Quercus alba*
Bur oak	*Quercus macrocarpa*
Chinkapin oak	*Quercus muehlenbergii*
Post oak	*Quercus stellata*
Overcup oak	*Quercus lyrata*
Other hardwoods	
Basswood, American	*Tilia americana*
Birch, river	*Betula nigra*
Boxelder	*Acer negundo*
Buckeye	*Aesculus* spp.
Catalpa, northern	*Catalpa speciosa*
Cherry, black	*Prunus serotina*
Cottonwood, eastern	*Populus deltoides*
Hackberry	*Celtis occidentalis*
Honeylocust	*Gleditsia triacanthos*
Kentucky coffeetree	*Gymnocladus dioicus*
Locust, black	*Robinia pseudoacacia*
Mulberry, white	*Morus alba*
Mulberry, red	*Morus rubra*
Persimmon	*Diospyros virginiana*
Sassafras	*Sassafras albidum*
Sugarberry	*Celtis laevigata*
Sycamore	*Platanus occidentalis*
Walnut, black	*Juglans nigra*
Willow, black	*Salix nigra*
Willow, white	*Salix alba*
Noncommercial species	
Ailanthus	*Ailanthus altissima*
Apple	*Malus* spp.
Catalpa, southern	*Catalpa bignoniodides*
Chittamwood	*Rhamnus purshiana*
Hawthorn	*Crataegus* spp.
Hophornbeam, eastern	*Ostrya virginiana*
Osage-orange	*Maclura pomifera*
Redbud, eastern	*Cercis canadensis*
Russian-olive	*Elaeagnus angustifolia*
Soapberry	*Saponaria*
Wild plum	*Prunus* spp.
Willow, peachleaf	*Salix amygdaloides*

LITERUAURE CITED

Moser, W. Keith; Hansen, Mark H.; Brand, Gary J.; Powers, Melissa. 2006. *Kansas' forest resources in 2004.* Resour. Bull. NC-259. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Research Station. 30 p. (Available only online: http://www/ncrs.fs.fed.us).

TABLE TITLES

Table 1.—*Number of active primary wood-using mills, Kansas, 1993, 1998, 2003*

Table 2.—*Industrial roundwood receipts by type of mill in Kansas, 1993, 1998, 2003*

Table 3.—*Industrial roundwood production by Forest Survey Unit, species group, and type of product, Kansas, 2003*

Table 4.—*Wood material harvested for industrial roundwood by Forest Survey Unit, source of material, and species group, Kansas, 2003*

Table 5.—*Saw log production by species group, Kansas, 1998, 2003 (International 1/4-inch scale)*

Table 5.1.—*Saw log production by species group, Kansas, 1998, 2003 (Doyle scale)*

Table 6.—*Saw log receipts by species group, Kansas, 1998, 2003 (International 1/4-inch scale)*

Table 6.1.—*Saw log receipts by species group, Kansas, 1998, 2003 (Doyle scale)*

Table 7.—*Saw log production by Forest Survey Unit, species group, and State of destination, Kansas, 2003 (International 1/4-inch scale)*

Table 7.1.—*Saw log production by Forest Survey Unit, species group, and State of destination, Kansas, 2003 (Doyle scale)*

Table 8.—*Saw log receipts by Forest Survey Unit, species group, and State of origin, Kansas, 2003 (International 1/4-inch scale)*

Table 8.1.—*Saw log receipts by Forest Survey Unit, species group, and State of origin, Kansas, 2003 (Doyle scale)*

Table 9.—*Saw log production by Forest Survey Unit, county, and species group, Kansas, 2003*

Table 10.—*Growing-stock removals from timberland for industrial roundwood by Forest Survey Unit, county, and species group, Kansas, 2003*

Table 11.—*Sawtimber removals from timberland for industrial roundwood by Forest Survey Unit, county, and species group, Kansas, 2003*

Table 12.—*Harvest residues generated by industrial roundwood harvested by Forest Survey Unit, county, and species group, Kansas, 2003*

Table 13.—*Residue produced at primary wood-using mills by Forest Survey Unit, type of use, and type of material, Kansas, 2003*

Table 1.-- Number of active primary wood-using mills in Kansas, 1993, 1998, 2003

Kind of mill			1993	1998	2003
Sawmills	Large	1	1	2	1
Sawmills	Medium	2	2	3	2
Sawmills	Small	3	32	34	37
Total			35	39	40

1-- Annual lumber production more than 5 million board feet.
2-- Annual lumber production from 1 million to 5 million board feet.
3-- Annual lumber production less than 1 million board feet.
Pulp mills- Includes particle board plants, OSB, waferboard, etc.
Other mills- Includes post, pole, piling, cooperage, shavings, mine timber, commercial firewood vendors, etc.

Table 2.-- Industrial roundwood receipts by type of mill in Kansas, 1993, 1998, 2003

(In thousand cubic feet)

Softwood	1993	1998	2003	Percent change from 1998
Saw mills	12.4	14.6	27.4	88%
Total:	12.4	14.6	27.4	88%

Hardwood	1993	1998	2003	Percent change from 1998
Saw mills	2071.5	3079.3	2566.3	-17%
Total:	2071.5	3079.3	2566.3	-17%

All speceis	1993	1998	2003	Percent change from 1998
Saw mills	2083.9	3093.9	2593.6	-16%
Total:	2083.9	3093.9	2593.6	-16%

Pulp mills: Includes particleboard plants: OSB, waferboard, etc.
Other mills: Does not include treating plants or fuelwood receipts.

Rows and columns may not sum due to rounding

Table 3.-- Industrial roundwood production by Forest Survey Unit, species group, and type of product, Kansas, 2003

Species group	Saw logs		Veneer logs		Pulpwood		Industrial fuelwood		Miscellaneous	All products
	MBF	MCF	MBF	MCF	Cords	MCF	Cords	MCF	MCF	MCF
					All Units					
Softwoods										
Other/unknown swds	0	0	--	--	--	--	--	--	--	0
Ponderosa pine	1	0	--	--	--	--	--	--	--	0
Redcedar	127	27	--	--	--	--	--	--	--	27
Species group total	128	27	--	--	--	--	--	--	--	27
Hardwoods										
Ash	1,683	288	--	--	--	--	--	--	--	288
Basswood	62	10	--	--	--	--	--	--	--	10
Black cherry	28	4	--	--	--	--	--	--	--	4
Black locust	1	0	--	--	--	--	--	--	--	0
Black walnut	2,984	457	--	--	--	--	--	--	0	457
Cottonwood	5,941	917	--	--	--	--	--	--	--	917
Elm	92	15	--	--	--	--	--	--	--	15
Hackberry	840	133	--	--	--	--	--	--	--	133
Hard maple	2	0	--	--	--	--	--	--	--	0
Hickory	196	34	--	--	--	--	--	--	--	34
Osage-orange	2	0	--	--	--	--	--	--	--	0
Other/unknown hwds	31	5	--	--	--	--	--	--	--	5
Pecan	0	0	--	--	--	--	--	--	--	0
Red oak group	1,434	256	--	--	--	--	--	--	0	256
Soft maple	3,226	512	--	--	--	--	--	--	1	514
Sycamore	238	38	--	--	--	--	--	--	--	38
White oak group	3,294	588	--	--	--	--	--	--	0	588
Species group total	20,057	3,257	--	--	--	--	--	--	2	3,260
State Total	20,186	3,285	--	--	--	--	--	--	2	3,287

(Table 3 continued on next page)

(Table 3 Continued)

Species group	Saw logs		Veneer logs		Pulpwood		Industrial fuelwood		Miscellaneous	All products
	MBF	MCF	MBF	MCF	Cords	MCF	Cords	MCF	MCF	MCF
Northeastern Unit										
Softwoods										
Redcedar	15	3	--	--	--	--	--	--	--	3
Species group total	15	3	--	--	--	--	--	--	--	3
Hardwoods										
Ash	160	27	--	--	--	--	--	--	--	27
Basswood	61	10	--	--	--	--	--	--	--	10
Black cherry	27	4	--	--	--	--	--	--	--	4
Black locust	0	0	--	--	--	--	--	--	--	0
Black walnut	1,031	158	--	--	--	--	--	--	0	158
Cottonwood	2,090	323	--	--	--	--	--	--	--	323
Elm	35	5	--	--	--	--	--	--	--	5
Hackberry	191	30	--	--	--	--	--	--	--	30
Hard maple	1	0	--	--	--	--	--	--	--	0
Hickory	1	0	--	--	--	--	--	--	--	0
Other/unknown hwds	11	2	--	--	--	--	--	--	--	2
Red oak group	348	62	--	--	--	--	--	--	0	62
Soft maple	478	76	--	--	--	--	--	--	0	76
Sycamore	61	10	--	--	--	--	--	--	--	10
White oak group	367	66	--	--	--	--	--	--	0	66
Species group total	4,861	773	--	--	--	--	--	--	1	773
Unit Total	4,876	776	--	--	--	--	--	--	1	777

(Table 3 continued on next page)

(Table 3 Continued)

Species group	Saw logs		Veneer logs		Pulpwood		Industrial fuelwood		Miscellaneous	All products
	MBF	MCF	MBF	MCF	Cords	MCF	Cords	MCF	MCF	MCF
Southeastern Unit										
Softwoods										
Other/unknown swds	0	0	--	--	--	--	--	--	--	0
Redcedar	21	4	--	--	--	--	--	--	--	4
Species group total	21	4	--	--	--	--	--	--	--	4
Hardwoods										
Ash	1,514	259	--	--	--	--	--	--	--	259
Basswood	1	0	--	--	--	--	--	--	--	0
Black cherry	1	0	--	--	--	--	--	--	--	0
Black locust	0	0	--	--	--	--	--	--	--	0
Black walnut	1,929	295	--	--	--	--	--	--	0	295
Cottonwood	1,055	163	--	--	--	--	--	--	--	163
Elm	55	9	--	--	--	--	--	--	--	9
Hackberry	503	80	--	--	--	--	--	--	--	80
Hickory	195	33	--	--	--	--	--	--	--	33
Osage-orange	1	0	--	--	--	--	--	--	--	0
Other/unknown hwds	20	3	--	--	--	--	--	--	--	3
Red oak group	1,085	194	--	--	--	--	--	--	0	194
Soft maple	2,748	436	--	--	--	--	--	--	1	437
Sycamore	177	28	--	--	--	--	--	--	--	28
White oak group	2,405	429	--	--	--	--	--	--	0	429
Species group total	11,686	1,929	--	--	--	--	--	--	2	1,931
Unit Total	11,707	1,934	--	--	--	--	--	--	2	1,935

(Table 3 continued on next page)

(Table 3 Continued)

Species group	Saw logs		Veneer logs		Pulpwood		Industrial fuelwood		Miscellaneous	All products
	MBF	MCF	MBF	MCF	Cords	MCF	Cords	MCF	MCF	MCF
Western Unit										
Softwoods										
Ponderosa pine	1	0	--	--	--	--	--	--	--	0
Redcedar	91	19	--	--	--	--	--	--	--	19
Species group total	92	20	--	--	--	--	--	--	--	20
Hardwoods										
Ash	10	2	--	--	--	--	--	--	--	2
Black cherry	1	0	--	--	--	--	--	--	--	0
Black locust	1	0	--	--	--	--	--	--	--	0
Black walnut	25	4	--	--	--	--	--	--	--	4
Cottonwood	2,797	432	--	--	--	--	--	--	--	432
Elm	2	0	--	--	--	--	--	--	--	0
Hackberry	147	23	--	--	--	--	--	--	--	23
Hard maple	1	0	--	--	--	--	--	--	--	0
Hickory	1	0	--	--	--	--	--	--	--	0
Osage-orange	1	0	--	--	--	--	--	--	--	0
Other/unknown hwds	1	0	--	--	--	--	--	--	--	0
Pecan	0	0	--	--	--	--	--	--	--	0
Red oak group	2	0	--	--	--	--	--	--	--	0
Soft maple	1	0	--	--	--	--	--	--	--	0
Sycamore	1	0	--	--	--	--	--	--	--	0
White oak group	522	93	--	--	--	--	--	--	--	93
Species group total	3,510	555	--	--	--	--	--	--	--	555
Unit Total	3,603	575	--	--	--	--	--	--	--	575

MBF: Thousand board feet, International 1/4-inch rule.
MCF: Thousand cubic feet.
Cords: Standard cords are 128 cubic feet, consisting of 79 cubic feet of wood and 49 cubic feet of air space.

Columns and rows may not sum due to rounding

Table 4. -- Wood material harvested for industrial roundwood by Forest Survey Unit, source of material, and species group, Kansas, 2003

(In thousand cubic feet)

Species group	Growing stock				Non growing stock							Total material used for product	Total material not used	Total material harvested
	Used		Not used	Total	Used					Not used	Total			
	Sawtimber	Pole-timber	Logging residue		Limb-wood	Saplings	Cull Trees	Dead Trees	Non-forest trees	Logging slash				
Northeastern Unit														
Softwoods														
Redcedar	3.2	--	0.0	3.2	--	--	0.0	--	--	1.0	1.1	3.2	1.1	4.3
Total	3.2	--	0.0	3.2	--	--	0.0	--	--	1.0	1.1	3.2	1.1	4.3
Hardwoods														
Ash	24.7	--	10.2	34.9	0.7	--	1.9	--	--	8.2	10.8	27.3	18.4	45.7
Basswood	8.3	--	0.9	9.2	--	--	1.0	0.3	--	2.6	3.9	9.6	3.5	13.1
Black cherry	3.6	--	0.4	4.0	--	--	0.5	0.1	--	1.1	1.7	4.2	1.5	5.7
Black locust	0.0	--	0.0	0.0	0.0	--	0.0	--	--	0.0	0.0	0.0	0.0	0.0
Black walnut	131.7	0.1	12.6	144.4	2.9	--	4.2	--	19.0	34.8	60.9	157.9	47.4	205.3
Cottonwood	322.5	--	48.7	371.2	--	--	--	--	--	99.9	99.9	322.5	148.6	471.1
Elm	4.7	--	0.5	5.3	--	--	0.6	0.2	--	1.5	2.2	5.5	2.0	7.5
Hackberry	26.2	--	2.9	29.1	--	--	3.3	0.9	--	8.0	12.2	30.3	10.9	41.3
Hard maple	0.2	--	0.1	0.3	0.0	--	0.0	--	--	0.1	0.1	0.2	0.2	0.4
Hickory	0.2	--	0.1	0.3	0.0	--	0.0	--	--	0.1	0.1	0.2	0.2	0.4
Other/unknown cherry	--	--	--	--	--	--	0.0	0.0	--	0.0	0.0	0.0	0.0	0.0
Other/unknown hwds	1.4	--	0.2	1.6	--	--	0.2	0.0	--	0.4	0.7	1.7	0.6	2.3
Red oak group	39.5	2.2	12.8	54.4	0.0	--	20.5	--	--	14.1	34.7	62.2	26.9	89.1
Soft maple	65.6	0.3	7.3	73.2	0.1	--	8.3	2.2	--	20.1	30.6	76.4	27.4	103.8
Sycamore	8.3	--	0.9	9.2	--	--	1.0	0.3	--	2.6	3.9	9.6	3.5	13.1
White oak group	41.6	2.3	13.5	57.4	0.1	--	21.6	--	--	14.9	36.6	65.6	28.4	94.0
Total	678.7	4.9	111.1	794.6	3.8	--	63.2	3.9	19.0	208.3	298.2	773.4	319.4	1,092.8
Unit total	681.9	4.9	111.1	797.8	3.8	--	63.2	3.9	19.0	209.4	299.3	776.6	320.5	1,097.1
Southeastern Unit														
Softwoods														
Other/unknown pine	0.0	--	0.0	0.0	--	--	0.0	--	--	0.0	0.0	0.0	0.0	0.0
Redcedar	4.4	--	0.0	4.4	--	--	0.0	--	--	1.4	1.4	4.4	1.4	5.9
Total	4.4	--	0.0	4.4	--	--	0.0	--	--	1.4	1.4	4.4	1.4	5.9
Hardwoods														
Ash	233.8	--	96.7	330.6	6.7	--	18.2	--	--	77.5	102.3	258.7	174.2	432.9
Basswood	0.2	--	0.0	0.2	--	--	0.0	0.0	--	0.1	0.1	0.2	0.1	0.3
Black cherry	0.1	--	0.0	0.2	--	--	0.0	0.0	--	0.0	0.1	0.2	0.1	0.2
Black locust	0.0	--	0.0	0.0	0.0	--	0.0	--	--	0.0	0.0	0.0	0.0	0.0
Black walnut	246.5	0.1	23.5	270.2	5.4	--	7.9	--	35.5	65.2	114.0	295.5	88.7	384.2
Cottonwood	162.7	--	24.6	187.3	--	--	--	--	--	50.4	50.4	162.7	75.0	237.7
Elm	7.6	--	0.8	8.4	--	--	0.9	0.2	--	2.3	3.5	8.8	3.2	11.9
Hackberry	68.9	--	7.6	76.6	--	--	8.6	2.3	--	21.2	32.1	79.8	28.8	108.6
Hickory	30.1	--	12.4	42.5	0.9	--	2.3	--	--	10.0	13.2	33.3	22.4	55.7
Osage-orange	--	--	--	--	0.0	--	0.1	--	--	0.1	0.2	0.1	0.1	0.2
Other/unknown cherry	--	--	--	--	--	--	0.0	0.0	--	0.0	0.0	0.0	0.0	0.0
Other/unknown hwds	2.7	--	0.3	3.0	--	--	0.3	0.1	--	0.8	1.2	3.1	1.1	4.2
Red oak group	122.9	6.8	39.8	169.5	0.1	--	63.9	--	--	43.9	108.0	193.7	83.7	277.5
Soft maple	376.9	0.6	41.8	419.3	0.2	--	47.4	12.4	--	115.7	175.6	437.4	157.6	594.9
Sycamore	24.2	--	2.7	26.9	--	--	3.0	0.8	--	7.4	11.3	28.1	10.1	38.2
White oak group	272.5	15.0	88.3	375.8	0.3	--	141.7	--	--	97.4	239.4	429.5	185.7	615.2
Total	1,549.2	22.5	338.7	1,910.4	13.5	--	294.5	15.8	35.5	492.0	851.3	1,931.0	830.8	2,761.7
Unit total	1,553.6	22.5	338.7	1,914.8	13.5	--	294.5	15.8	35.5	493.5	852.8	1,935.4	832.2	2,767.6

(Table 4 continued on next page)

(table 4 continued)

Species group	Growing stock: Used: Sawtimber	Growing stock: Used: Pole-timber	Growing stock: Not used: Logging residue	Growing stock: Total	Non growing stock: Used: Limb-wood	Non growing stock: Used: Saplings	Non growing stock: Used: Cull Trees	Non growing stock: Used: Dead Trees	Non growing stock: Used: Non-forest trees	Non growing stock: Not used: Logging slash	Non growing stock: Total	Total material used for product	Total material not used	Total material harvested
Western Unit														
Softwoods														
Ponderosa pine	0.2	--	0.0	0.2	--	--	0.0	--	--	0.1	0.1	0.2	0.1	0.3
Redcedar	19.4	--	0.1	19.5	--	--	0.1	--	--	6.2	6.3	19.5	6.3	25.8
Total	19.5	--	0.1	19.7	--	--	0.1	--	--	6.3	6.4	19.7	6.4	26.1
Hardwoods														
Ash	1.5	--	0.6	2.2	0.0	--	0.1	--	--	0.5	0.7	1.7	1.1	2.9
Black cherry	0.0	--	0.0	0.0	--	--	0.0	0.0	--	0.0	0.0	0.0	0.0	0.0
Black locust	0.2	--	0.1	0.2	0.0	--	0.0	--	--	0.1	0.1	0.2	0.1	0.3
Black walnut	3.2	--	0.3	3.5	0.1	--	0.1	--	0.5	0.8	1.5	3.8	1.1	5.0
Cottonwood	431.5	--	65.2	496.7	--	--	--	--	--	133.7	133.7	431.5	198.8	630.3
Elm	0.3	--	0.0	0.4	--	--	0.0	0.0	--	0.1	0.1	0.4	0.1	0.5
Hackberry	20.1	--	2.2	22.3	--	--	2.5	0.7	--	6.2	9.3	23.3	8.4	31.7
Hard maple	0.1	--	0.0	0.2	0.0	--	0.0	--	--	0.0	0.0	0.1	0.1	0.2
Hickory	0.1	--	0.0	0.1	0.0	--	0.0	--	--	0.0	0.0	0.1	0.1	0.1
Osage-orange	--	--	--	--	0.0	--	0.2	--	--	0.1	0.4	0.2	0.1	0.4
Other/unknown cherry	--	--	--	--	--	--	0.1	0.0	--	0.0	0.1	0.1	0.0	0.1
Other/unknown hwds	0.2	--	0.0	0.2	0.0	--	0.0	0.0	--	0.1	0.1	0.2	0.1	0.3
Pecan	0.0	--	0.0	0.1	0.0	--	0.0	--	--	0.0	0.0	0.0	0.0	0.1
Red oak group	0.2	0.0	0.1	0.2	0.0	--	0.1	--	--	0.1	0.2	0.3	0.1	0.4
Soft maple	0.1	--	0.0	0.1	--	--	0.0	0.0	--	0.0	0.0	0.1	0.0	0.1
Sycamore	0.1	--	0.0	0.1	--	--	0.0	0.0	--	0.0	0.0	0.1	0.0	0.1
White oak group	59.1	3.2	19.1	81.5	0.1	--	30.7	--	--	21.1	51.9	93.1	40.3	133.4
Total	516.7	3.2	87.8	607.7	0.2	--	34.0	0.7	0.5	162.9	198.2	555.2	250.7	805.9
Unit total	536.2	3.2	87.9	627.4	0.2	--	34.1	0.7	0.5	169.2	204.6	574.9	257.1	832.0
All Units														
Softwoods														
Other/unknown pine	0.0	--	0.0	0.0	--	--	0.0	--	--	0.0	0.0	0.0	0.0	0.0
Ponderosa pine	0.2	--	0.0	0.2	--	--	0.0	--	--	0.1	0.1	0.2	0.1	0.3
Redcedar	27.0	--	0.2	27.1	--	--	0.2	--	--	8.6	8.8	27.2	8.8	36.0
Total	27.2	--	0.2	27.3	--	--	0.2	--	--	8.7	8.9	27.4	8.9	36.2
Hardwoods														
Ash	260.1	--	107.6	367.6	7.4	--	20.2	--	--	86.2	113.8	287.7	193.7	481.4
Basswood	8.5	--	0.9	9.5	--	--	1.1	0.3	--	2.6	4.0	9.9	3.6	13.4
Black cherry	3.8	--	0.4	4.2	--	--	0.5	0.1	--	1.2	1.8	4.4	1.6	6.0
Black locust	0.2	--	0.1	0.2	0.0	--	0.0	--	--	0.1	0.1	0.2	0.1	0.3
Black walnut	381.4	0.2	36.4	418.0	8.4	--	12.3	--	54.9	100.9	176.5	457.2	137.3	594.5
Cottonwood	916.7	--	138.4	1,055.2	--	--	--	--	--	284.0	284.0	916.7	422.4	1,339.2
Elm	12.6	--	1.4	14.0	--	--	1.6	0.4	--	3.9	5.9	14.6	5.3	19.9
Hackberry	115.2	--	12.8	128.0	--	--	14.5	3.8	--	35.4	53.6	133.4	48.1	181.6
Hard maple	0.3	--	0.1	0.5	0.0	--	0.0	--	--	0.1	0.1	0.4	0.2	0.6
Hickory	30.4	--	12.6	42.9	0.9	--	2.4	--	--	10.1	13.3	33.6	22.6	56.2
Osage-orange	--	--	--	--	0.0	--	0.3	--	--	0.2	0.6	0.3	0.2	0.6
Other/unknown cherry	--	--	--	--	--	--	0.1	0.0	--	0.0	0.1	0.1	0.0	0.1
Other/unknown hwds	4.3	--	0.5	4.8	0.0	--	0.6	0.1	--	1.3	2.0	5.0	1.8	6.8
Pecan	0.0	--	0.0	0.1	0.0	--	0.0	--	--	0.0	0.0	0.0	0.0	0.1
Red oak group	162.5	9.0	52.7	224.2	0.2	--	84.5	--	--	58.1	142.8	256.2	110.8	367.0
Soft maple	442.5	0.9	49.2	492.6	0.3	--	55.7	14.5	--	135.9	206.3	513.8	185.0	698.9
Sycamore	32.6	--	3.6	36.3	--	--	4.1	1.1	--	10.0	15.2	37.8	13.6	51.4
White oak group	373.2	20.6	120.9	514.7	0.4	--	194.0	--	--	133.4	327.8	588.2	254.3	842.6
Total	2,744.5	30.7	537.6	3,312.7	17.5	--	391.7	20.3	54.9	863.3	1,347.7	3,259.6	1,400.9	4,660.5
State total	2,771.6	30.7	537.7	3,340.0	17.5	--	391.9	20.3	54.9	872.0	1,356.6	3,286.9	1,409.7	4,696.7

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 thousand cubic feet. Columns and rows may not add to their totals due to rounding.

Table 5.--Saw log production by species group, Kansas, 1998, 2003

(In board feet, 1/4-inch International scale)

Species group	1998	2003	Change
Softwoods			
Redcedar	61,456	127,180	107%
Ponderosa pine	8,400	1,035	-88%
Other/unknown swds	--	100	--
Total	69,856	128,315	84%
Hardwoods			
Soft maple	2,787,648	3,226,468	16%
Hard maple	3,360	2,070	-38%
Hickory	98,120	196,481	100%
Pecan	176,650	276	-100%
Hackberry	1,814,486	840,236	-54%
Ash	782,970	1,683,189	115%
Black walnut	1,439,929	2,984,248	107%
Osage-orange	18,022	1,954	-89%
Sycamore	775,079	238,071	-69%
Cottonwood	6,142,100	5,941,336	-3%
Black cherry	2,760	28,134	919%
Red oak group	1,091,934	1,434,401	31%
White oak group	4,147,610	3,293,902	-21%
Black locust	700	1,136	62%
Willow	5,140	--	--
Basswood	22,980	62,100	170%
Elm	438,005	92,046	-79%
Other/unknown hwds	1,700	31,242	1738%
Total	19,749,193	20,057,289	2%
All species	19,819,049	20,185,604	2%

Columns may not sum due to rounding

Table 5.1.--Saw log production by species group, Kansas, 1998, 2003

(In board feet, Doyle scale)

Species group	1998	2003	Change
Softwoods			
Redcedar	84,809	175,508	107%
Ponderosa pine	11,592	1,428	-88%
Other/unknown swds	--	138	--
Total	96,401	177,074	84%
Hardwoods			
Soft maple	3,846,954	4,452,526	16%
Hard maple	4,637	2,857	-38%
Hickory	135,406	271,143	100%
Pecan	243,777	381	-100%
Hackberry	2,503,991	1,159,525	-54%
Ash	1,080,499	2,322,800	115%
Black walnut	1,987,102	4,118,263	107%
Osage-orange	24,870	2,696	-89%
Sycamore	1,069,609	328,538	-69%
Cottonwood	8,476,098	8,199,044	-3%
Black cherry	3,809	38,826	919%
Red oak group	1,506,869	1,979,474	31%
White oak group	5,723,702	4,545,585	-21%
Black locust	966	1,568	62%
Willow	7,093	--	--
Basswood	31,712	85,698	170%
Elm	604,447	127,023	-79%
Other/unknown hwds	2,346	43,113	1738%
Total	27,253,886	27,679,059	2%
All species	27,350,288	27,856,133	2%

Columns may not sum due to rounding

Table 6.--Saw log receipts by species group, Kansas, 1998, 2003

(In board feet, 1/4-inch International scale)

Species group	1998	2003	Change
Softwood			
Redcedar	61,456	127,180	107%
Ponderosa pine	8,400	1,035	-88%
Other/unknown swds	- -	100	- -
Total	69,856	128,315	84%
Hardwood			
Soft maple	3,008,150	2,998,188	0%
Hard maple	3,360	2,070	-38%
Hickory	22,040	466,961	2019%
Pecan	208,390	276	-100%
Hackberry	1,999,130	1,023,776	-49%
Ash	769,634	1,691,989	120%
Black walnut	576,349	1,267,996	120%
Osage-orange	18,022	1,954	-89%
Sycamore	1,189,630	514,071	-57%
Cottonwood	9,426,008	3,853,336	-59%
Black cherry	2,760	765	-72%
Red oak group	716,766	2,086,511	191%
White oak group	3,088,658	3,823,012	24%
Black locust	700	1,136	62%
Willow	5,140	- -	- -
Basswood	6,420	28,980	351%
Elm	603,329	92,046	-85%
Other/unknown hwds	1,700	31,242	1738%
Total	21,646,186	17,884,307	-17%
All species	21,716,042	18,012,622	-17%

Columns may not sum due to rounding

Table 6.1--Saw log receipts by species group, Kansas, 1998, 2003

(In board feet, Doyle scale)

Species group	1998	2003	Change
Softwood			
Redcedar	84,809	175,508	107%
Ponderosa pine	11,592	1,428	-88%
Other/unknown swds	- -	138	- -
Total	96,401	177,074	84%
Hardwood			
Soft maple	4,151,247	4,137,499	0%
Hard maple	4,637	2,857	-38%
Hickory	30,415	644,406	2019%
Pecan	287,578	381	-100%
Hackberry	2,758,799	1,412,810	-49%
Ash	1,062,095	2,334,944	120%
Black walnut	795,362	1,749,834	120%
Osage-orange	24,870	2,696	-89%
Sycamore	1,641,689	709,418	-57%
Cottonwood	13,007,891	5,317,604	-59%
Black cherry	3,809	1,056	-72%
Red oak group	989,137	2,879,386	191%
White oak group	4,262,348	5,275,757	24%
Black locust	966	1,568	62%
Willow	7,093	- -	- -
Basswood	8,860	39,992	351%
Elm	832,594	127,023	-85%
Other/unknown hwds	2,346	43,113	1738%
Total	29,871,737	24,680,344	-17%
All species	29,968,138	24,857,418	-17%

Columns may not sum due to rounding

Table 7.-- Saw log production by Forest Survey Unit, species group, and State of destination, Kansas, 2003

(In board feet, 1/4-inch International scale)

All Units

Species group	Kansas	Missouri	Nebraska	Other U.S.	Total
Softwoods					
Redcedar	127,180	--	--	--	127,180
Ponderosa pine	1,035	--	--	--	1,035
Other/unknown swds	100	--	--	--	100
Total	128,315	--	--	--	128,315
Hardwoods					
Soft maple	2,858,808	367,660	--	--	3,226,468
Hard maple	2,070	--	--	--	2,070
Hickory	196,481	--	--	--	196,481
Pecan	276	--	--	--	276
Hackberry	800,216	40,020	--	--	840,236
Ash	1,632,649	50,540	--	--	1,683,189
Black walnut	1,014,076	1,590,500	--	379,673	2,984,248
Osage-orange	1,954	--	--	--	1,954
Sycamore	238,071	--	--	--	238,071
Cottonwood	3,853,336	--	2,088,000	--	5,941,336
Black cherry	765	--	--	27,370	28,134
Red oak group	1,255,751	178,650	--	--	1,434,401
White oak group	3,144,052	149,850	--	--	3,293,902
Black locust	1,136	--	--	--	1,136
Basswood	28,980	33,120	--	--	62,100
Elm	92,046	--	--	--	92,046
Other/unknown hwds	31,242	--	--	--	31,242
Total	15,151,907	2,410,340	2,088,000	407,042	20,057,289
All species	15,280,222	2,410,340	2,088,000	407,042	20,185,604

(Table 7 continued on next page)

(Table 7 continued)

Northeastern Unit

Species group	Kansas	Missouri	Other U.S.	Total
Softwoods				
Redcedar	15,180	--	--	15,180
Total	15,180	--	--	15,180
Hardwoods				
Soft maple	229,356	248,593	--	477,949
Hard maple	1,380	--	--	1,380
Hickory	1,380	--	--	1,380
Hackberry	150,996	40,020	--	191,016
Ash	114,138	45,540	--	159,678
Black walnut	155,141	759,246	116,310	1,030,697
Sycamore	60,720	--	--	60,720
Cottonwood	2,090,160	--	--	2,090,160
Black cherry	120	--	26,413	26,533
Red oak group	195,426	152,816	--	348,242
White oak group	259,458	107,683	--	367,141
Black locust	10	--	--	10
Basswood	27,600	33,120	--	60,720
Elm	34,500	--	--	34,500
Other/unknown hwds	10,500	--	--	10,500
Total	3,330,885	1,387,018	142,723	4,860,626
All species	3,346,065	1,387,018	142,723	4,875,806

(Table 7 continued on next page)

(Table 7 continued)

Species group	Kansas	Missouri	Other U.S.	Total
	Southeastern Unit			
Softwoods				
Redcedar	20,714	--	--	20,714
Other/unknown swds	100	--	--	100
Total	20,814	--	--	20,814
Hardwoods				
Soft maple	2,628,900	119,067	--	2,747,967
Hickory	194,601	--	--	194,601
Hackberry	502,715	--	--	502,715
Ash	1,508,541	5,000	--	1,513,541
Black walnut	833,937	831,254	263,362	1,928,553
Osage-orange	704	--	--	704
Sycamore	176,661	--	--	176,661
Cottonwood	1,054,638	--	--	1,054,638
Black cherry	87	--	957	1,044
Red oak group	1,058,771	25,834	--	1,084,605
White oak group	2,362,830	42,167	--	2,404,997
Black locust	100	--	--	100
Basswood	1,380	--	--	1,380
Elm	55,200	--	--	55,200
Other/unknown hwds	19,500	--	--	19,500
Total	10,398,564	1,023,322	264,319	11,686,205
All species	10,419,377	1,023,322	264,319	11,707,019

(Table 7 continued on next page)

(Table 7 continued)

Western Unit

Species group	Kansas	Nebraska	Total
Softwoods			
Redcedar	91,286	--	91,286
Ponderosa pine	1,035	--	1,035
Total	92,321	--	92,321
Hardwoods			
Soft maple	552	--	552
Hard maple	690	--	690
Hickory	500	--	500
Pecan	276	--	276
Hackberry	146,505	--	146,505
Ash	9,970	--	9,970
Black walnut	24,998	--	24,998
Osage-orange	1,250	--	1,250
Sycamore	690	--	690
Cottonwood	708,538	2,088,000	2,796,538
Black cherry	558	--	558
Red oak group	1,554	--	1,554
White oak group	521,764	--	521,764
Black locust	1,026	--	1,026
Elm	2,346	--	2,346
Other/unknown hwds	1,242	--	1,242
Total	1,422,459	2,088,000	3,510,459
All species	1,514,780	2,088,000	3,602,780

Columns may not sum due to rounding

Table 7.1-- Saw log production by Forest Survey Unit, species group, and State of destination, Kansas, 2003

(In board feet, Doyle scale)

All Units

Species group	Kansas	Missouri	Nebraska	Other U.S.	Total
Softwoods					
Redcedar	175,508	--	--	--	175,508
Ponderosa pine	1,428	--	--	--	1,428
Other/unknown swds	138	--	--	--	138
Total	177,074				177,074
Hardwoods					
Soft maple	3,945,155	507,371	--	--	4,452,526
Hard maple	2,857	--	--	--	2,857
Hickory	271,143	--	--	--	271,143
Pecan	381	--	--	--	381
Hackberry	1,104,297	55,228	--	--	1,159,525
Ash	2,253,055	69,745	--	--	2,322,800
Black walnut	1,399,425	2,194,890	--	523,948	4,118,263
Osage-orange	2,696	--	--	--	2,696
Sycamore	328,538	--	--	--	328,538
Cottonwood	5,317,604	--	2,881,440	--	8,199,044
Black cherry	1,056	--	--	37,770	38,826
Red oak group	1,732,937	246,537	--	--	1,979,474
White oak group	4,338,792	206,793	--	--	4,545,585
Black locust	1,568	--	--	--	1,568
Basswood	39,992	45,706	--	--	85,698
Elm	127,023	--	--	--	127,023
Other/unknown hwds	43,113	--	--	--	43,113
Total	20,909,632	3,326,269	2,881,440	561,718	27,679,059
All species	21,086,706	3,326,269	2,881,440	561,718	27,856,133

(Table 7.1 continued on next page)

(Table 7.1 continued)

Northeastern Unit

Species group	Kansas	Missouri	Other U.S.	Total
Softwoods				
Redcedar	20,948	--	--	20,948
Total	20,948			20,948
Hardwoods				
Soft maple	316,511	343,058	--	659,570
Hard maple	1,904	--	--	1,904
Hickory	1,904	--	--	1,904
Hackberry	208,374	55,228	--	263,602
Ash	157,510	62,845	--	220,356
Black walnut	214,095	1,047,759	160,508	1,422,362
Sycamore	83,794	--	--	83,794
Cottonwood	2,884,421	--	--	2,884,421
Black cherry	166	--	36,449	36,615
Red oak group	269,688	210,886	--	480,574
White oak group	358,052	148,603	--	506,655
Black locust	14	--	--	14
Basswood	38,088	45,706	--	83,794
Elm	47,610	--	--	47,610
Other/unknown hwds	14,490	--	--	14,490
Total	4,596,621	1,914,085	196,958	6,707,664
All species	4,617,570	1,914,085	196,958	6,728,612

(Table 7.1 continued on next page)

(Table 7.1 continued)

Southeastern Unit

Species group	Kansas	Missouri	Other U.S.	Total
Softwoods				
Redcedar	28,585	--	--	28,585
Other/unknown swds	138	--	--	138
Total	28,723			28,723
Hardwoods				
Soft maple	3,627,882	164,312	--	3,792,194
Hickory	268,549	--	--	268,549
Hackberry	693,746	--	--	693,746
Ash	2,081,786	6,900	--	2,088,686
Black walnut	1,150,833	1,147,131	363,440	2,661,403
Osage-orange	971	--	--	971
Sycamore	243,792	--	--	243,792
Cottonwood	1,455,400	--	--	1,455,400
Black cherry	120	--	1,321	1,441
Red oak group	1,461,105	35,651	--	1,496,755
White oak group	3,260,705	58,190	--	3,318,896
Black locust	138	--	--	138
Basswood	1,904	--	--	1,904
Elm	76,176	--	--	76,176
Other/unknown hwds	26,910	--	--	26,910
Total	14,350,018	1,412,184	364,760	16,126,963
All species	14,378,741	1,412,184	364,760	16,155,686

(Table 7.1 continued on next page)

(Table 7.1 continued)

Western Unit

Species group	Kansas	Nebraska	Total
Softwoods			
Redcedar	125,975	--	125,975
Ponderosa pine	1,428	--	1,428
Total	127,403		127,403
Hardwoods			
Soft maple	762	--	762
Hard maple	952	--	952
Hickory	690	--	690
Pecan	381	--	381
Hackberry	202,177	--	202,177
Ash	13,759	--	13,759
Black walnut	34,497	--	34,497
Osage-orange	1,725	--	1,725
Sycamore	952	--	952
Cottonwood	977,782	2,881,440	3,859,222
Black cherry	770	--	770
Red oak group	2,145	--	2,145
White oak group	720,034	--	720,034
Black locust	1,416	--	1,416
Elm	3,237	--	3,237
Other/unknown hwds	1,713	--	1,713
Total	1,962,993	2,881,440	4,844,433
All species	2,090,396	2,881,440	4,971,836

Columns may not sum due to rounding

Table 8-- Saw log receipts by Forest Survey Unit, species group, and State of origin, Kansas, 2003

(In board feet, 1/4-inch International scale)

All Units

Species	Kansas	Missouri	Other U.S.	Total
Softwoods				
Other/unknown swds	100	--	--	100
Ponderosa pine	1,035	--	--	1,035
Redcedar	127,180	--	--	127,180
Total	128,315	--	--	128,315
Hardwoods				
Ash	1,632,649	27,600	31,740	1,691,989
Basswood	28,980	--	--	28,980
Black cherry	765	--	--	765
Black locust	1,136	--	--	1,136
Black walnut	1,014,076	52,440	201,480	1,267,996
Cottonwood	3,853,336	--	--	3,853,336
Elm	92,046	--	--	92,046
Hackberry	800,216	41,400	182,160	1,023,776
Hard maple	2,070	--	--	2,070
Hickory	196,481	--	270,480	466,961
Osage-orange	1,954	--	--	1,954
Other/unknown hwds	31,242	--	--	31,242
Pecan	276	--	--	276
Red oak group	1,255,751	--	830,760	2,086,511
Soft maple	2,858,808	69,000	70,380	2,998,188
Sycamore	238,071	--	276,000	514,071
White oak group	3,144,052	--	678,960	3,823,012
Total	15,151,907	190,440	2,541,960	17,884,307
All species	15,280,222	190,440	2,541,960	18,012,622

(Table 8 continued on next page)

(Table 8 continued)

Species	Northeastern Kansas	Total
Softwoods		
Redcedar	15,580	15,580
Total	15,580	15,580
Hardwoods		
Ash	103,638	103,638
Basswood	27,600	27,600
Black cherry	455	455
Black walnut	51,741	51,741
Cottonwood	2,079,810	2,079,810
Elm	34,500	34,500
Hackberry	130,221	130,221
Hard maple	1,380	1,380
Hickory	1,880	1,880
Osage-orange	550	550
Red oak group	180,126	180,126
Soft maple	229,356	229,356
Sycamore	60,720	60,720
White oak group	244,108	244,108
Total	3,146,085	3,146,085
All species	3,161,665	3,161,665

(Table 8 continued on next page)

(Table 8 continued)

Species	Kansas	Missouri	Other U.S.	Total
	Southeastern			
Softwoods				
Redcedar	20,714	--	--	20,714
Total	20,714	--	--	20,714
Hardwoods				
Ash	1,519,041	27,600	31,740	1,578,381
Basswood	1,380	--	--	1,380
Black cherry	7	--	--	7
Black walnut	943,207	52,440	201,480	1,197,127
Cottonwood	1,065,138	--	--	1,065,138
Elm	55,200	--	--	55,200
Hackberry	523,715	41,400	182,160	747,275
Hickory	194,601	--	270,480	465,081
Osage-orange	704	--	--	704
Other/unknown hwds	30,000	--	--	30,000
Red oak group	1,074,521	--	830,760	1,905,281
Soft maple	2,628,900	69,000	70,380	2,768,280
Sycamore	176,661	--	276,000	452,661
White oak group	2,386,860	--	678,960	3,065,820
Total	10,599,934	190,440	2,541,960	13,332,334
All species	10,620,647	190,440	2,541,960	13,353,047

(Table 8 continued on next page)

(Table 8 continued)

Species	Western Kansas	Total
Softwoods		
Other/unknown swds	100	100
Ponderosa pine	1,035	1,035
Redcedar	90,886	90,886
Total	92,021	92,021
Hardwoods		
Ash	9,970	9,970
Black cherry	303	303
Black locust	1,136	1,136
Black walnut	19,128	19,128
Cottonwood	708,388	708,388
Elm	2,346	2,346
Hackberry	146,280	146,280
Hard maple	690	690
Osage-orange	700	700
Other/unknown hwds	1,242	1,242
Pecan	276	276
Red oak group	1,104	1,104
Soft maple	552	552
Sycamore	690	690
White oak group	513,084	513,084
Total	1,405,889	1,405,889
All species	1,497,910	1,497,910

Columns and rows may not sum due to rounding

Table 8.1-- Saw log receipts by Forest Survey Unit, species group, and State of origin, Kansas, 2003

(In board feet, Doyle scale)

	All Units			
Species	Kansas	Missouri	Other U.S.	Total
Softwoods				
Other/unknown swds	138	--	--	138
Ponderosa pine	1,428	--	--	1,428
Redcedar	175,508	--	--	175,508
Total	177,074	--	--	177,074
Hardwoods				
Ash	2,253,055	38,088	43,801	2,334,944
Basswood	39,992	--	--	39,992
Black cherry	1,056	--	--	1,056
Black locust	1,568	--	--	1,568
Black walnut	1,399,425	72,367	278,042	1,749,834
Cottonwood	5,317,604	--	--	5,317,604
Elm	127,023	--	--	127,023
Hackberry	1,104,297	57,132	251,381	1,412,810
Hard maple	2,857	--	--	2,857
Hickory	271,143	--	373,262	644,406
Osage-orange	2,696	--	--	2,696
Other/unknown hwds	43,113	--	--	43,113
Pecan	381	--	--	381
Red oak group	1,732,937	--	1,146,449	2,879,386
Soft maple	3,945,155	95,220	97,124	4,137,499
Sycamore	328,538	--	380,880	709,418
White oak group	4,338,792	--	936,965	5,275,757
Total	20,909,632	262,807	3,507,905	24,680,344
All species	21,086,706	262,807	3,507,905	24,857,418

(Table 8.1 continued on next page)

(Table 8.1 continued)

Northeastern

Species	Kansas	Total
Softwoods		
Redcedar	21,500	21,500
Total	21,500	21,500
Hardwoods		
Ash	143,020	143,020
Basswood	38,088	38,088
Black cherry	628	628
Black walnut	71,403	71,403
Cottonwood	2,870,138	2,870,138
Elm	47,610	47,610
Hackberry	179,705	179,705
Hard maple	1,904	1,904
Hickory	2,594	2,594
Osage-orange	759	759
Red oak group	248,574	248,574
Soft maple	316,511	316,511
Sycamore	83,794	83,794
White oak group	336,869	336,869
Total	4,341,597	4,341,597
All species	4,363,098	4,363,098

(Table 8.1 continued on next page)

(Table 8.1 continued)

Southeastern

Species	Kansas	Missouri	Other U.S.	Total
Softwoods				
Redcedar	28,585	--	--	28,585
Total	28,585	--	--	28,585
Hardwoods				
Ash	2,096,276	38,088	43,801	2,178,165
Basswood	1,904	--	--	1,904
Black cherry	10	--	--	10
Black walnut	1,301,626	72,367	278,042	1,652,035
Cottonwood	1,469,890	--	--	1,469,890
Elm	76,176	--	--	76,176
Hackberry	722,726	57,132	251,381	1,031,239
Hickory	268,549	--	373,262	641,811
Osage-orange	971	--	--	971
Other/unknown hwds	41,400	--	--	41,400
Red oak group	1,482,840	--	1,146,449	2,629,288
Soft maple	3,627,882	95,220	97,124	3,820,226
Sycamore	243,792	--	380,880	624,672
White oak group	3,293,867	--	936,965	4,230,832
Total	14,627,908	262,807	3,507,905	18,398,620
All species	14,656,493	262,807	3,507,905	18,427,205

(Table 8.1 continued on next page)

(Table 8.1 continued)

Species	Western Kansas	Total
Softwoods		
Other/unknown swds	138	138
Ponderosa pine	1,428	1,428
Redcedar	125,423	125,423
Total	126,989	126,989
Hardwoods		
Ash	13,759	13,759
Black cherry	418	418
Black locust	1,568	1,568
Black walnut	26,397	26,397
Cottonwood	977,575	977,575
Elm	3,237	3,237
Hackberry	201,866	201,866
Hard maple	952	952
Osage-orange	966	966
Other/unknown hwds	1,713	1,713
Pecan	381	381
Red oak group	1,524	1,524
Soft maple	762	762
Sycamore	952	952
White oak group	708,056	708,056
Total	1,940,126	1,940,126
All species	2,067,115	2,067,115

Columns and rows may not sum due to rounding

Table 9.--Saw log production by Forest Survey Unit, county, and species group, Kansas, 2003

(In board feet, 1/4-inch International scale)

Forest Survey Unit and County	Redcedar	Ponderosa pine	Other swds	Soft maple	Hard maple	Hickory	Pecan	Hackberry	Ash	Black walnut	Osage orange
Northeastern											
Atchison	--	--	--	235,980	--	--	--	82,800	41,400	74,525	--
Brown	--	--	--	48,300	--	--	--	9,660	9,660	73,140	--
Clay	--	--	--	--	--	--	--	--	1,380	--	--
Dickinson	--	--	--	--	--	--	--	24,840	--	13,800	--
Doniphan	--	--	--	91,080	--	--	--	35,880	26,220	74,520	--
Douglas	--	--	--	1,380	--	--	--	--	1,380	2,760	--
Franklin	--	--	--	--	--	--	--	--	--	14,588	--
Geary	--	--	--	--	--	--	--	7,000	3,500	7,000	--
Jefferson	--	--	--	20,700	--	--	--	6,900	5,520	60,720	--
Johnson	1,380	--	--	--	1,380	1,380	--	1,380	1,380	12,023	--
Leavenworth	--	--	--	20,700	--	--	--	6,900	6,900	62,100	--
Miami	--	--	--	59,809	--	--	--	276	138	520,506	--
Osage	--	--	--	--	--	--	--	--	--	82,800	--
Pottawatomie	13,800	--	--	--	--	--	--	1,380	55,200	14,076	--
Riley	--	--	--	--	--	--	--	7,000	3,500	11,140	--
Shawnee	--	--	--	--	--	--	--	--	--	--	--
Wabaunsee	--	--	--	--	--	--	--	7,000	3,500	7,000	--
Total	15,180			477,949	1,380	1,380		191,016	159,678	1,030,698	

(Table 9 continued)

Forest Survey Unit and County	Sycamore	Cottonwood	Black cherry	Red oak group	White oak group	Black locust	Basswood	Elm	Other hwds	Total
Northeastern										
Atchison	--	921,840	120	51,060	37,260	10	6,900	13,800	--	1,465,695
Brown	--	--	--	35,880	22,080	--	6,900	--	--	205,620
Clay	--	1,380	--	--	--	--	--	--	--	2,760
Dickinson	--	48,300	--	--	23,460	--	--	--	--	110,400
Doniphan	55,200	690,000	--	60,720	51,060	--	6,900	13,800	--	1,105,380
Douglas	1,380	2,760	--	--	1,380	--	--	1,380	--	12,420
Franklin	--	--	26,413	69,000	28,014	--	--	--	--	138,015
Geary	--	3,500	--	5,250	5,250	--	--	--	3,500	35,000
Jefferson	1,380	1,380	--	20,700	13,800	--	5,520	--	--	136,620
Johnson	2,760	--	--	6,900	5,520	--	--	5,520	--	39,623
Leavenworth	--	--	--	20,700	13,800	--	6,900	--	--	138,000
Miami	--	--	--	8,192	11,497	--	--	--	--	600,418
Osage	--	--	--	--	--	--	--	--	--	82,800
Pottawatomie	--	414,000	--	27,600	138,000	--	27,600	--	--	691,656
Riley	--	3,500	--	9,390	10,770	--	--	--	3,500	48,800
Shawnee	--	--	--	27,600	--	--	--	--	--	27,600
Wabaunsee	--	3,500	--	5,250	5,250	--	--	--	3,500	35,000
Total	60,720	2,090,160	26,533	348,242	367,141	10	60,720	34,500	10,500	4,875,807

(Table 9 continued)

Forest Survey Unit and County	Redcedar	Ponderosa pine	Other swds	Soft maple	Hard maple	Hickory	Pecan	Hackberry	Ash	Black walnut	Osage orange
Southeastern											
Allen	6,900	--	100	13,800	--	20,700	--	41,400	27,600	47,117	--
Anderson	--	--	--	20,700	--	41,400	--	--	27,600	212,413	--
Bourbon	--	--	--	59,533	--	1,380	--	1,380	3,880	535,884	690
Butler	8,280	--	--	--	--	--	--	4,140	5,520	5,520	--
Chase	--	--	--	--	--	--	--	18,000	9,000	18,000	--
Coffey	--	--	--	110,400	--	--	--	--	--	--	--
Crawford	--	--	--	--	--	--	--	--	--	5,946	--
Elk	--	--	--	--	--	--	--	--	--	--	--
Labette	14	--	--	--	--	21	--	35	21	7	14
Linn	--	--	--	59,534	--	--	--	--	2,500	519,127	--
Lyon	--	--	--	--	--	--	--	7,000	3,500	13,861	--
Marion	--	--	--	--	--	--	--	7,000	3,500	7,000	--
Montgomery	5,520	--	--	414,000	--	62,100	--	140,760	46,920	460,920	--
Morris	--	--	--	--	--	--	--	7,000	3,500	7,000	--
Neosho	--	--	--	2,070,000	--	69,000	--	276,000	1,380,000	80,435	--
Wilson	--	--	--	--	--	--	--	--	--	10,292	--
Woodson	--	--	--	--	--	--	--	--	--	5,031	--
Total	20,714		100	2,747,967		194,601		502,715	1,513,541	1,928,554	704

(Table 9 continued)

Forest Survey Unit and County	Sycamore	Cottonwood	Black cherry	Red oak group	White oak group	Black locust	Basswood	Elm	Other hwds	Total
Southeastern										
Allen	6,900	13,800	--	20,700	20,700	--	--	6,900	--	226,617
Anderson	41,400	724,500	1,036	55,200	41,400	100	--	13,800	--	1,179,549
Bourbon	--	--	--	14,297	21,083	--	1,380	--	--	639,507
Butler	--	--	--	--	6,900	--	--	--	--	30,360
Chase	--	9,000	--	13,500	13,500	--	--	--	9,000	90,000
Coffey	--	--	--	--	13,800	--	--	--	--	124,200
Crawford	--	--	--	--	--	--	--	--	--	5,946
Elk	9,660	--	--	--	--	--	--	--	--	9,660
Labette	21	138	7	41	--	--	--	--	--	317
Linn	--	--	--	12,917	21,084	--	--	--	--	615,162
Lyon	--	24,200	--	5,250	5,250	--	--	--	3,500	62,561
Marion	--	3,500	--	5,250	5,250	--	--	--	3,500	35,000
Montgomery	41,400	--	--	262,200	179,400	--	--	--	--	1,613,220
Morris	--	3,500	--	5,250	5,250	--	--	--	3,500	35,000
Neosho	77,280	276,000	--	690,000	2,071,380	--	--	34,500	--	7,024,595
Wilson	--	--	--	--	--	--	--	--	--	10,292
Woodson	--	--	--	--	--	--	--	--	--	5,031
Total	176,661	1,054,638	1,043	1,084,605	2,404,997	100	1,380	55,200	19,500	11,707,019

(Table 9 continued)

Forest Survey Unit and County	Redcedar	Ponderosa pine	Other swds	Soft maple	Hard maple	Hickory	Pecan	Hackberry	Ash	Black walnut	Osage orange
Western											
Barber	69,000	--	--	--	--	--	--	--	--	30	--
Cloud	--	--	--	--	--	--	--	41,400	--	--	--
Edwards	13,800	--	--	--	--	--	--	--	--	13,800	--
Harvey	1,738	345	--	--	--	--	--	--	1,000	2,483	700
Jewell	--	--	--	--	--	--	--	--	--	--	--
Lane	400	--	--	--	--	500	--	225	--	405	550
McPherson	6,348	690	--	552	690	--	276	1,380	2,070	--	--
Ottawa	--	--	--	--	--	--	--	103,500	6,900	2,760	--
Republic	--	--	--	--	--	--	--	--	--	--	--
Sedgwick	--	--	--	--	--	--	--	--	--	5,520	--
Total	91,286	1,035		552	690	500	276	146,505	9,970	24,998	1,250
State total	127,180	1,035	100	3,226,468	2,070	196,481	276	840,236	1,683,189	2,984,250	1,954

(Table 9 continued)

Forest Survey Unit and County	Sycamore	Cottonwood	Black cherry	Red oak group	White oak group	Black locust	Basswood	Elm	Other hwds	Total
Western										
Barber	--	--	103	--	--	50	--	--	--	69,183
Cloud	--	552,000	--	--	27,600	--	--	--	--	621,000
Edwards	--	13,800	--	--	--	--	--	--	--	41,400
Harvey	--	1,138	--	--	414	700	--	--	1,242	9,760
Jewell	--	1,044,000	--	--	--	--	--	--	--	1,044,000
Lane	--	150	455	450	400	--	--	--	--	3,535
McPherson	690	690	--	1,104	2,070	276	--	2,346	--	19,182
Ottawa	--	140,760	--	--	483,000	--	--	--	--	736,920
Republic	--	1,044,000	--	--	--	--	--	--	--	1,044,000
Sedgwick	--	--	--	--	8,280	--	--	--	--	13,800
Total	690	2,796,538	558	1,554	521,764	1,026		2,346	1,242	3,602,780
State total	238,071	5,941,336	28,134	1,434,401	3,293,902	1,136	62,100	92,046	31,242	20,185,605

Columns and rows may not sum due to rounding

Table 10.-- Growing-stock removals from timberland for industrial roundwood by Forest Survey Unit, county, and species group, Kansas, 2003

(In cubic feet)

Forest Survey Unit and County	Redcedar	Ponderosa pine	Other swds	Soft maple	Hard maple	Hickory	Pecan	Hackberry	Ash	Black walnut
Northeastern										
Atchison	--	--	--	35,940	--	--	--	12,610	9,042	10,434
Brown	--	--	--	7,356	--	--	--	1,471	2,110	10,240
Clay	--	--	--	--	--	--	--	--	301	--
Dickinson	--	--	--	--	--	--	--	3,783	--	1,932
Doniphan	--	--	--	13,871	--	--	--	5,465	5,726	10,433
Douglas	--	--	--	210	--	--	--	--	301	386
Franklin	--	--	--	--	--	--	--	--	--	2,042
Geary	--	--	--	--	--	--	--	1,066	764	980
Jefferson	--	--	--	3,153	--	--	--	1,051	1,206	8,501
Johnson	294	--	--	--	301	301	--	210	301	1,683
Leavenworth	--	--	--	3,153	--	--	--	1,051	1,507	8,694
Miami	--	--	--	9,505	--	--	--	42	30	72,955
Osage	--	--	--	--	--	--	--	--	--	11,592
Pottawatomie	2,942	--	--	--	--	--	--	210	12,056	1,971
Riley	--	--	--	--	--	--	--	1,066	764	1,560
Shawnee	--	--	--	--	--	--	--	--	--	--
Wabaunsee	--	--	--	--	--	--	--	1,066	764	980
Total	3,236	--	--	73,188	301	301	--	29,092	34,874	144,382

(Table 10 continued)

Forest Survey Unit and County	Osage orange	Sycamore	Cottonwood	Black cherry	Red oak group	White oak group	Black locust	Basswood	Elm	Other hwds
Northeastern										
Atchison	--	--	163,719	14	7,976	5,820	2	1,051	2,102	--
Brown	--	--	--	--	5,604	3,449	--	1,051	--	--
Clay	--	--	245	--	--	--	--	--	--	--
Dickinson	--	--	8,578	--	--	3,664	--	--	--	--
Doniphan	--	8,407	122,544	--	9,484	7,976	--	1,051	2,102	--
Douglas	--	210	490	--	--	216	--	--	210	--
Franklin	--	--	--	4,023	10,778	4,376	--	--	--	--
Geary	--	--	622	--	820	820	--	--	--	533
Jefferson	--	210	245	--	3,233	2,156	--	841	--	--
Johnson	--	420	--	--	1,078	862	--	--	841	--
Leavenworth	--	--	--	--	3,233	2,156	--	1,051	--	--
Miami	--	--	--	--	1,332	1,870	--	--	--	--
Osage	--	--	--	--	--	--	--	--	--	--
Pottawatomie	--	--	73,526	--	4,311	21,556	--	4,203	--	--
Riley	--	--	622	--	1,467	1,682	--	--	--	533
Shawnee	--	--	--	--	4,311	--	--	--	--	--
Wabaunsee	--	--	622	--	820	820	--	--	--	533
Total	--	9,248	371,212	4,036	54,448	57,421	2	9,248	5,254	1,599

(Table 10 continued)

Forest Survey Unit and County	Total
Northeastern	
Atchison	248,708
Brown	31,281
Clay	546
Dickinson	17,958
Doniphan	187,059
Douglas	2,024
Franklin	21,219
Geary	5,605
Jefferson	20,595
Johnson	6,293
Leavenworth	20,844
Miami	85,734
Osage	11,592
Pottawatomie	120,775
Riley	7,694
Shawnee	4,311
Wabaunsee	5,605
Total	797,843

(Table 10 continued)

Forest Survey Unit and County	Redcedar	Ponderosa pine	Other swds	Soft maple	Hard maple	Hickory	Pecan	Hackberry	Ash	Black walnut
Southeastern										
Allen	1,471	--	19	2,102	--	4,521	--	6,305	6,028	6,596
Anderson	--	--	--	3,153	--	9,042	--	--	6,028	29,738
Bourbon	--	--	--	9,463	--	301	--	210	847	75,108
Butler	1,765	--	--	--	--	--	--	631	1,206	773
Chase	--	--	--	--	--	--	--	2,741	1,966	2,520
Coffey	--	--	--	16,814	--	--	--	--	--	--
Crawford	--	--	--	--	--	--	--	--	--	832
Elk	--	--	--	--	--	--	--	--	--	--
Labette	3	--	--	--	--	5	--	5	5	1
Linn	--	--	--	9,463	--	--	--	--	546	72,762
Lyon	--	--	--	--	--	--	--	1,066	764	1,941
Marion	--	--	--	--	--	--	--	1,066	764	980
Montgomery	1,177	--	--	63,052	--	13,563	--	21,438	10,247	64,529
Morris	--	--	--	--	--	--	--	1,066	764	980
Neosho	--	--	--	315,261	--	15,070	--	42,035	301,392	11,261
Wilson	--	--	--	--	--	--	--	--	--	1,441
Woodson	--	--	--	--	--	--	--	--	--	704
Total	4,416	--	19	419,308	--	42,501	--	76,563	330,557	270,166

(Table 10 continued)

Forest Survey Unit and County	Osage orange	Sycamore	Cottonwood	Black cherry	Red oak group	White oak group	Black locust	Basswood	Elm	Other hwds
Southeastern										
Allen	--	1,051	2,451	--	3,233	3,233	--	--	1,051	--
Anderson	--	6,305	128,671	153	8,622	6,467	22	--	2,102	--
Bourbon	0	--	--	--	2,286	3,367	--	210	--	--
Butler	--	--	--	--	--	1,078	--	--	--	--
Chase	--	--	1,598	--	2,109	2,109	--	--	--	1,371
Coffey	--	--	--	--	--	2,156	--	--	--	--
Crawford	--	--	--	--	--	--	--	--	--	--
Elk	--	1,471	--	--	--	--	--	--	--	--
Labette	0	3	25	1	6	--	--	--	--	--
Linn	--	--	--	--	2,070	3,367	--	--	--	--
Lyon	--	--	4,298	--	820	820	--	--	--	533
Marion	--	--	622	--	820	820	--	--	--	533
Montgomery	--	6,305	--	--	40,956	28,022	--	--	--	--
Morris	--	--	622	--	820	820	--	--	--	533
Neosho	--	11,770	49,018	--	107,778	323,550	--	--	5,254	--
Wilson	--	--	--	--	--	--	--	--	--	--
Woodson	--	--	--	--	--	--	--	--	--	--
Total	0	26,905	187,304	154	169,521	375,808	22	210	8,407	2,970

(Table 10 continued)

Forest Survey Unit and County	Total
Southeastern	
Allen	38,062
Anderson	200,302
Bourbon	91,793
Butler	5,452
Chase	14,414
Coffey	18,969
Crawford	832
Elk	1,471
Labette	53
Linn	88,209
Lyon	10,242
Marion	5,605
Montgomery	249,289
Morris	5,605
Neosho	1,182,388
Wilson	1,441
Woodson	704
Total	1,914,832

(Table 10 continued)

Forest Survey Unit and County	Redcedar	Ponderosa pine	Other swds	Soft maple	Hard maple	Hickory	Pecan	Hackberry	Ash	Black walnut
Western										
Barber	14,711	--	--	--	--	--	--	--	--	4
Cloud	--	--	--	--	--	--	--	6,305	--	--
Edwards	2,942	--	--	--	--	--	--	--	--	1,932
Harvey	371	66	--	--	--	--	--	--	218	348
Jewell	--	--	--	--	--	--	--	--	--	--
Lane	85	--	--	--	--	109	--	34	--	57
McPherson	1,353	133	--	84	151	--	60	210	452	--
Ottawa	--	--	--	--	--	--	--	15,763	1,507	386
Republic	--	--	--	--	--	--	--	--	--	--
Sedgwick	--	--	--	--	--	--	--	--	--	773
Total	19,462	199	--	84	151	109	60	22,313	2,177	3,500
All Units	27,115	199	19	492,580	452	42,911	60	127,968	367,608	418,048

(Table 10 continued)

Forest Survey Unit and County	Osage orange	Sycamore	Cottonwood	Black cherry	Red oak group	White oak group	Black locust	Basswood	Elm	Other hwds
Western										
Barber	--	--	--	15	--	--	11	--	--	--
Cloud	--	--	98,035	--	--	4,311	--	--	--	--
Edwards	--	--	2,451	--	--	--	--	--	--	--
Harvey	0	--	202	--	--	65	153	--	--	202
Jewell	--	--	185,414	--	--	--	--	--	--	--
Lane	0	--	27	0	70	62	--	--	--	--
McPherson	--	105	123	--	172	323	60	--	357	--
Ottawa	--	--	24,999	--	--	75,445	--	--	--	--
Republic	--	--	185,414	--	--	--	--	--	--	--
Sedgwick	--	--	--	--	--	1,293	--	--	--	--
Total	0	105	496,665	15	243	81,500	224	--	357	202
All Units	0	36,258	1,055,181	4,206	224,212	514,729	248	9,458	14,019	4,771

(Table 10 continued)

Forest Survey Unit and County	Total
Western	
Barber	14,741
Cloud	108,652
Edwards	7,325
Harvey	1,625
Jewell	185,414
Lane	445
McPherson	3,584
Ottawa	118,100
Republic	185,414
Sedgwick	2,066
Total	627,367
All Units	3,340,041

Columns and rows may not sum due to rounding

Table 11.-- Sawtimber removals from timberland for industrial roundwood by Forest Survey Unit, county, and species group, Kansas, 2003

(In thousand board feet, 1/4-inch International scale)

Forest Service Unit and County	Redcedar	Ponderosa pine	Other pine	Soft maple	Hard maple	Hickory	Pecan	Hackberry	Ash	Black walnut
Northeastern										
Atchison	--	--	--	209,975	--	--	--	73,675	43,681	65,358
Brown	--	--	--	42,977	--	--	--	8,595	10,192	64,144
Clay	--	--	--	--	--	--	--	--	1,456	--
Dickinson	--	--	--	--	--	--	--	22,103	--	12,103
Doniphan	--	--	--	81,043	--	--	--	31,926	27,665	65,354
Douglas	--	--	--	1,228	--	--	--	--	1,456	2,421
Franklin	--	--	--	--	--	--	--	--	--	12,794
Geary	--	--	--	--	--	--	--	6,229	3,693	6,139
Jefferson	--	--	--	18,419	--	--	--	6,140	5,824	53,251
Johnson	1,324	--	--	--	1,456	1,456	--	1,228	1,456	10,544
Leavenworth	--	--	--	18,419	--	--	--	6,140	7,280	54,462
Miami	--	--	--	53,633	--	--	--	246	146	456,572
Osage	--	--	--	--	--	--	--	--	--	72,616
Pottawatomie	13,244	--	--	--	--	--	--	1,228	58,242	12,345
Riley	--	--	--	--	--	--	--	6,229	3,693	9,770
Shawnee	--	--	--	--	--	--	--	--	--	--
Wabaunsee	--	--	--	--	--	--	--	6,229	3,693	6,139
Total	14,568	--	--	425,694	1,456	1,456	--	169,966	168,476	904,010

(Table 11 continued)

Forest Service Unit and County	Sycamore	Cottonwood	Black cherry	Red oak group	White oak group	Black locust	Basswood	Elm	Other hwds	All Species
Northeastern										
Atchison	- -	965,812	80	30,432	22,207	11	6,140	12,279	- -	1,429,650
Brown	- -	- -	- -	21,384	13,160	- -	6,140	- -	- -	166,593
Clay	- -	1,446	- -	- -	- -	- -	- -	- -	- -	2,902
Dickinson	- -	50,604	- -	- -	13,982	- -	- -	- -	- -	98,791
Doniphan	49,117	722,913	- -	36,189	30,432	- -	6,140	12,279	- -	1,063,057
Douglas	1,228	2,892	- -	- -	822	- -	- -	1,228	- -	11,274
Franklin	- -	- -	23,502	41,124	16,696	- -	- -	- -	- -	94,116
Geary	- -	3,667	- -	3,129	3,129	- -	- -	- -	3,114	29,100
Jefferson	1,228	1,446	- -	12,337	8,225	- -	4,912	- -	- -	111,782
Johnson	2,456	- -	- -	4,112	3,290	- -	- -	4,912	- -	32,234
Leavenworth	- -	- -	- -	12,337	8,225	- -	6,140	- -	- -	113,002
Miami	- -	- -	- -	4,937	6,929	- -	- -	- -	- -	522,463
Osage	- -	- -	- -	- -	- -	- -	- -	- -	- -	72,616
Pottawatomie	- -	433,748	- -	16,450	82,248	- -	24,558	- -	- -	642,062
Riley	- -	3,667	- -	5,596	6,419	- -	- -	- -	3,114	38,488
Shawnee	- -	- -	- -	16,450	- -	- -	- -	- -	- -	16,450
Wabaunsee	- -	3,667	- -	3,129	3,129	- -	- -	- -	3,114	29,100
Total	54,029	2,189,861	23,582	207,607	218,893	11	54,029	30,698	9,343	4,473,678

(Table 11 continued)

Forest Service Unit and County	Redcedar	Ponderosa pine	Other pine	Soft maple	Hard maple	Hickory	Pecan	Hackberry	Ash	Black walnut
Southeastern										
Allen	6,622	--	103	12,279	--	21,841	--	36,838	29,121	41,322
Anderson	--	--	--	18,419	--	43,681	--	--	29,121	186,286
Bourbon	--	--	--	53,387	--	1,456	--	1,228	4,094	470,059
Butler	7,946	--	--	--	--	--	--	3,684	5,824	4,841
Chase	--	--	--	--	--	--	--	16,016	9,496	15,786
Coffey	--	--	--	98,234	--	--	--	--	--	--
Crawford	--	--	--	--	--	--	--	--	--	5,215
Elk	--	--	--	--	--	--	--	--	--	--
Labette	13	--	--	--	--	22	--	31	22	6
Linn	--	--	--	53,388	--	--	--	--	2,638	455,363
Lyon	--	--	--	--	--	--	--	6,229	3,693	12,156
Marion	--	--	--	--	--	--	--	6,229	3,693	6,139
Montgomery	5,298	--	--	368,377	--	65,522	--	125,248	49,505	404,227
Morris	--	--	--	--	--	--	--	6,229	3,693	6,139
Neosho	--	--	--	1,841,886	--	72,802	--	245,585	1,456,038	70,541
Wilson	--	--	--	--	--	--	--	--	--	9,026
Woodson	--	--	--	--	--	--	--	--	--	4,412
Total	19,879	--	103	2,445,970	--	205,323	--	447,315	1,596,937	1,691,518

(Table 11 continued)

Forest Service Unit and County	Sycamore	Cottonwood	Black cherry	Red oak group	White oak group	Black locust	Basswood	Elm	Other hwds	All Species
Southeastern										
Allen	6,140	14,458	--	12,337	12,337	--	--	6,140	--	199,537
Anderson	36,838	759,059	896	32,899	24,674	106	--	12,279	--	1,144,257
Bourbon	--	--	--	8,576	12,643	--	1,228	--	--	552,670
Butler	--	--	--	--	4,112	--	--	--	--	26,408
Chase	--	9,429	--	8,046	8,046	--	--	--	8,008	74,828
Coffey	--	--	--	--	8,225	--	--	--	--	106,459
Crawford	--	--	--	--	--	--	--	--	--	5,215
Elk	8,595	--	--	--	--	--	--	--	--	8,595
Labette	18	145	6	25	--	--	--	--	--	287
Linn	--	--	--	7,754	12,643	--	--	--	--	531,786
Lyon	--	25,354	--	3,129	3,129	--	--	--	3,114	56,804
Marion	--	3,667	--	3,129	3,129	--	--	--	3,114	29,100
Montgomery	36,838	--	--	156,271	106,922	--	--	--	--	1,318,208
Morris	--	3,667	--	3,129	3,129	--	--	--	3,114	29,100
Neosho	68,764	289,165	--	411,240	1,234,542	--	--	30,698	--	5,721,262
Wilson	--	--	--	--	--	--	--	--	--	9,026
Woodson	--	--	--	--	--	--	--	--	--	4,412
Total	157,193	1,104,944	902	646,535	1,433,533	106	1,228	49,117	17,351	9,817,953

(Table 11 continued)

Forest Service Unit and County	Redcedar	Ponderosa pine	Other pine	Soft maple	Hard maple	Hickory	Pecan	Hackberry	Ash	Black walnut
Western										
Barber	66,219	--	--	--	--	--	--	--	--	26
Cloud	--	--	--	--	--	--	--	36,838	--	--
Edwards	13,244	--	--	--	--	--	--	--	--	12,103
Harvey	1,668	354	--	--	--	--	--	--	1,055	2,178
Jewell	--	--	--	--	--	--	--	--	--	--
Lane	384	--	--	--	--	528	--	200	--	355
McPherson	6,092	707	--	491	728	--	291	1,228	2,184	--
Ottawa	--	--	--	--	--	--	--	92,094	7,280	2,421
Republic	--	--	--	--	--	--	--	--	--	--
Sedgwick	--	--	--	--	--	--	--	--	--	4,841
Total	87,607	1,061	--	491	728	528	291	130,360	10,519	21,923
All Units	122,054	1,061	103	2,872,155	2,184	207,307	291	747,642	1,775,932	2,617,451

(Table 11 continued)

Forest Service Unit and County	Sycamore	Cottonwood	Black cherry	Red oak group	White oak group	Black locust	Basswood	Elm	Other hwds	All Species
Western										
Barber	--	--	89	--	--	53	--	--	--	66,387
Cloud	--	578,330	--	--	16,450	--	--	--	--	631,618
Edwards	--	14,458	--	--	--	--	--	--	--	39,805
Harvey	--	1,192	--	--	247	739	--	--	1,085	8,517
Jewell	--	1,093,799	--	--	--	--	--	--	--	1,093,799
Lane	--	157	--	268	238	--	--	--	--	2,131
McPherson	614	723	--	658	1,234	291	--	2,087	--	17,329
Ottawa	--	147,474	--	--	287,868	--	--	--	--	537,137
Republic	--	1,093,799	--	--	--	--	--	--	--	1,093,799
Sedgwick	--	--	--	--	4,935	--	--	--	--	9,776
Total	614	2,929,933	89	926	310,971	1,083	--	2,087	1,085	3,500,297
All Units	211,835	6,224,738	24,573	855,069	1,963,397	1,199	55,257	81,903	27,779	17,791,929

Columns and rows may not sum due to rounding

Table 12.-- Harvest residues generated by industrial roundwood harvested by Forest Survey Unit, county, and species group, Kansas, 2003

(In cubic feet)

Forest Survey Unit and County	Redcedar	Ponderosa pine	Other swds	Soft maple	Hard maple	Hickory	Pecan	Hackberry	Ash	Black walnut
Northeastern										
Atchison	--	--	--	13,522	--	--	--	4,744	4,765	3,428
Brown	--	--	--	2,768	--	--	--	554	1,112	3,364
Clay	--	--	--	--	--	--	--	--	159	--
Dickinson	--	--	--	--	--	--	--	1,423	--	635
Doniphan	--	--	--	5,219	--	--	--	2,056	3,018	3,428
Douglas	--	--	--	79	--	--	--	--	159	127
Franklin	--	--	--	--	--	--	--	--	--	671
Geary	--	--	--	--	--	--	--	401	403	322
Jefferson	--	--	--	1,186	--	--	--	395	635	2,793
Johnson	95	--	--	--	159	159	--	79	159	553
Leavenworth	--	--	--	1,186	--	--	--	395	794	2,857
Miami	--	--	--	3,478	--	--	--	16	16	23,954
Osage	--	--	--	--	--	--	--	--	--	3,809
Pottawatomie	955	--	--	--	--	--	--	79	6,354	647
Riley	--	--	--	--	--	--	--	401	403	512
Shawnee	--	--	--	--	--	--	--	--	--	--
Wabaunsee	--	--	--	--	--	--	--	401	403	322
Total	1,050	--	--	27,437	159	159	--	10,945	18,379	47,423

(Table 12 continued)

Forest Survey Unit and County	Osage orange	Sycamore	Cottonwood	Black cherry	Red oak group	White oak group	Black locust	Basswood	Elm	Other hwds
Northeastern										
Atchison	--	--	65,543	7	3,942	2,876	1	395	791	--
Brown	--	--	--	--	2,770	1,705	--	395	--	--
Clay	--	--	98	--	--	--	--	--	--	--
Dickinson	--	--	3,434	--	--	1,811	--	--	--	--
Doniphan	--	3,163	49,059	--	4,688	3,942	--	395	791	--
Douglas	--	79	196	--	--	107	--	--	79	--
Franklin	--	--	--	1,513	5,327	2,163	--	--	--	--
Geary	--	--	249	--	405	405	--	--	--	201
Jefferson	--	79	98	--	1,598	1,065	--	316	--	--
Johnson	--	158	--	--	533	426	--	--	316	--
Leavenworth	--	--	--	--	1,598	1,065	--	395	--	--
Miami	--	--	--	--	639	897	--	--	--	--
Osage	--	--	--	--	--	--	--	--	--	--
Pottawatomie	--	--	29,435	--	2,131	10,654	--	1,581	--	--
Riley	--	--	249	--	725	831	--	--	--	201
Shawnee	--	--	--	--	2,131	--	--	--	--	--
Wabaunsee	--	--	249	--	405	405	--	--	--	201
Total	--	3,479	148,610	1,520	26,891	28,353	1	3,479	1,977	602

(Table 12 continued)

Forest Survey Unit and County	All Species
Northeastern	
Atchison	100,015
Brown	12,667
Clay	257
Dickinson	7,303
Doniphan	75,758
Douglas	826
Franklin	9,674
Geary	2,386
Jefferson	8,167
Johnson	2,637
Leavenworth	8,291
Miami	29,000
Osage	3,809
Pottawatomie	51,836
Riley	3,322
Shawnee	2,131
Wabaunsee	2,386
Total	320,465

(Table 12 continued)

Forest Survey Unit and County	Redcedar	Ponderosa pine	Other swds	Soft maple	Hard maple	Hickory	Pecan	Hackberry	Ash	Black walnut
Southeastern										
Allen	477	--	7	791	--	2,383	--	2,372	3,177	2,167
Anderson	--	--	--	1,186	--	4,765	--	--	3,177	9,771
Bourbon	--	--	--	3,462	--	159	--	79	447	24,662
Butler	573	--	--	--	--	--	--	237	635	254
Chase	--	--	--	--	--	--	--	1,031	1,036	828
Coffey	--	--	--	6,326	--	--	--	--	--	--
Crawford	--	--	--	--	--	--	--	--	--	274
Elk	--	--	--	--	--	--	--	--	--	--
Labette	1	--	--	--	--	2	--	2	2	0
Linn	--	--	--	3,462	--	--	--	--	288	23,891
Lyon	--	--	--	--	--	--	--	401	403	638
Marion	--	--	--	--	--	--	--	401	403	322
Montgomery	382	--	--	23,722	--	7,148	--	8,066	5,400	21,202
Morris	--	--	--	--	--	--	--	401	403	322
Neosho	--	--	--	118,611	--	7,942	--	15,815	158,838	3,700
Wilson	--	--	--	--	--	--	--	--	--	473
Woodson	--	--	--	--	--	--	--	--	--	231
Total	1,433	--	7	157,560	--	22,399	--	28,806	174,209	88,735

(Table 12 continued)

Forest Survey Unit and County	Osage orange	Sycamore	Cottonwood	Black cherry	Red oak group	White oak group	Black locust	Basswood	Elm	Other hwds
Southeastern										
Allen	--	395	981	--	1,598	1,598	--	--	395	--
Anderson	--	2,372	51,512	59	4,261	3,196	12	--	791	--
Bourbon	78	--	--	--	1,111	1,637	--	79	--	--
Butler	--	--	--	--	--	533	--	--	--	--
Chase	--	--	640	--	1,042	1,042	--	--	--	516
Coffey	--	--	--	--	--	1,065	--	--	--	--
Crawford	--	--	--	--	--	--	--	--	--	--
Elk	--	554	--	--	--	--	--	--	--	--
Labette	2	1	10	0	3	--	--	--	--	--
Linn	--	--	--	--	1,004	1,637	--	--	--	--
Lyon	--	--	1,721	--	405	405	--	--	--	201
Marion	--	--	249	--	405	405	--	--	--	201
Montgomery	--	2,372	--	--	20,242	13,850	--	--	--	--
Morris	--	--	249	--	405	405	--	--	--	201
Neosho	--	4,428	19,624	--	53,268	159,911	--	--	1,977	--
Wilson	--	--	--	--	--	--	--	--	--	--
Woodson	--	--	--	--	--	--	--	--	--	--
Total	79	10,123	74,985	60	83,745	185,685	12	79	3,163	1,117

(Table 12 continued)

Forest Survey Unit and County	All Species
Southeastern	
Allen	16,342
Anderson	81,102
Bourbon	31,713
Butler	2,232
Chase	6,135
Coffey	7,391
Crawford	274
Elk	554
Labette	24
Linn	30,282
Lyon	4,173
Marion	2,386
Montgomery	102,384
Morris	2,386
Neosho	544,113
Wilson	473
Woodson	231
Total	832,196

(Table 12 continued)

Forest Survey Unit and County	Redcedar	Ponderosa pine	Other swds	Soft maple	Hard maple	Hickory	Pecan	Hackberry	Ash	Black walnut
Western										
Barber	4,775	--	--	--	--	--	--	--	--	1
Cloud	--	--	--	--	--	--	--	2,372	--	--
Edwards	955	--	--	--	--	--	--	--	--	635
Harvey	120	25	--	--	--	--	--	--	115	114
Jewell	--	--	--	--	--	--	--	--	--	--
Lane	28	--	--	--	--	58	--	13	--	19
McPherson	439	49	--	32	79	--	32	79	238	--
Ottawa	--	--	--	--	--	--	--	5,931	794	127
Republic	--	--	--	--	--	--	--	--	--	--
Sedgwick	--	--	--	--	--	--	--	--	--	254
Total	6,317	74	--	32	79	58	32	8,395	1,148	1,150
All Units	8,801	74	7	185,029	238	22,615	32	48,145	193,735	137,308

(Table 12 continued)

Forest Survey Unit and County	Osage orange	Sycamore	Cottonwood	Black cherry	Red oak group	White oak group	Black locust	Basswood	Elm	Other hwds
Western										
Barber	--	--	--	6	--	--	6	--	--	--
Cloud	--	--	39,247	--	--	2,131	--	--	--	--
Edwards	--	--	981	--	--	--	--	--	--	--
Harvey	79	--	81	--	--	32	81	--	--	102
Jewell	--	--	74,228	--	--	--	--	--	--	--
Lane	62	--	11	26	35	31	--	--	--	--
McPherson	--	40	49	--	85	160	32	--	134	--
Ottawa	--	--	10,008	--	--	37,288	--	--	--	--
Republic	--	--	74,228	--	--	--	--	--	--	--
Sedgwick	--	--	--	--	--	639	--	--	--	--
Total	141	40	198,834	32	120	40,280	118	--	134	102
All Units	221	13,641	422,429	1,612	110,756	254,318	131	3,558	5,274	1,821

(Table 12 continued)

Forest Survey Unit and County	All Species
Western	
Barber	4,788
Cloud	43,750
Edwards	2,571
Harvey	749
Jewell	74,228
Lane	281
McPherson	1,449
Ottawa	54,147
Republic	74,228
Sedgwick	893
Total	257,085
All Units	1,409,746

Columns and rows may not sum due to rounding

Table 13.--Residue produced at primary wood-using mills by Forest Survey Unit, type of use, and type of material, Kansas, 2003

(In green tons)

Forest Survey Unit/Disposition	Bark		Coarse		Fine		Total	
	Softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood
Western								
Fiber products	0.06	0.31	--	0.73	--	0.25	0.06	1.29
Industrial fuel-sold	4.69	15.73	18.49	78.59	--	12.42	23.18	106.74
Domestic fuel	--	1.26	2.14	8.58	--	--	2.14	9.83
Miscellaneous	23.46	353.97	92.46	790.53	22.98	655.18	138.90	1,799.68
Not used	3.34	9.88	10.08	17.98	18.91	171.85	32.33	199.71
Total	31.55	381.15	123.17	896.42	41.89	839.69	196.61	2,117.26
Southeastern								
Fiber products	--	--	--	9,384.69	--	--	--	9,384.69
Charcoal	--	--	--	--	--	314.85	--	314.85
Domestic fuel	0.00	171.00	1.85	1,222.40	--	28.01	1.85	1,421.40
Miscellaneous	0.94	3,996.58	3.70	229.86	1.24	5,741.12	5.88	9,967.55
Not used	0.94	1,942.30	1.87	3,622.16	2.16	1,751.48	4.97	7,315.94
Total	1.88	6,109.88	7.42	14,459.10	3.41	7,835.45	12.70	28,404.43
Northeastern								
Industrial fuel-sold	--	299.16	--	725.63	--	--	--	1,024.78
Domestic fuel	--	15.73	6.08	827.46	--	21.53	6.08	864.72
Miscellaneous	5.63	630.17	14.79	1,175.17	0.62	720.90	21.05	2,526.23
Not used	0.14	852.49	1.85	1,531.88	7.01	1,403.65	9.00	3,788.02
Total	5.77	1,797.55	22.73	4,260.13	7.63	2,146.08	36.12	8,203.76
All Units								
Fiber products	0.06	0.31	--	9,385.42	--	0.25	0.06	9,385.98
Charcoal	--	--	--	--	--	314.85	--	314.85
Industrial fuel-sold	4.69	314.89	18.49	804.22	--	12.42	23.18	1,131.53
Domestic fuel	0.00	187.99	10.08	2,058.44	--	49.54	10.08	2,295.96
Miscellaneous	30.03	4,980.72	110.95	2,195.56	24.85	7,117.20	165.83	14,293.47
Not used	4.42	2,804.67	13.80	5,172.02	28.08	3,326.97	46.30	11,303.67
Total	39.20	8,288.58	153.32	19,615.65	52.93	10,821.22	245.44	38,725.45

Columns and rows may not sum due to rounding

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2007. **Kansas timber industry—an assessment of timber product output and use, 2003.** Resour. Bull. NC-269. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Research Station. 72 p.

Discusses recent forest industry trends in Kansas; reports production and receipts of industrial roundwood by product, species, and county in 2003. Also reports on logging residue, on wood and bark residue generated at primary wood-using mills, and on disposition of mill residues.

KEY WORDS: Industrial roundwood, production residues, saw logs, veneer logs.

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